



NORMAN J. COLMAN, EDITOR AND PROPRIETOR.

BENJ. BRYAN, PUBLISHER.

VOL. XVI.

ST. LOUIS, MO., MARCH, 1864.

NO. 3.

THE VALLEY FARMER,

AN AGRICULTURAL, HORTICULTURAL AND STOCK JOURNAL.

PUBLISHED ON THE FIRST OF EACH MONTH, AT
No. 97 Chestnut Street,

SAINT LOUIS, MO.

Terms—Always in Advance.

ONE DOLLAR PER YEAR.

Any one sending FIVE NEW Subscribers and FIVE Dollars, shall receive a copy one year GRATIS, as a Premium. Remittances at our risk.

Advertisements—\$15 00 per page; \$10 00 per half page; and \$2 00 per square of 10 lines, each insertion.

ADDRESS, BENJ. BRYAN, PUBLISHER,
97 Chestnut St., Saint Louis, Mo.

ESSAY ON HEMP CULTURE.

BY L. J. BRADFORD, OF AUGUSTA, KY.

The culture of Hemp is an interest of great and growing importance in the great West. Its production heretofore has been mainly confined to Kentucky and Missouri, but there can be no reasonable doubt in the minds of those who have given the least attention to the subject, that Illinois, Iowa, Minnesota and Wisconsin, have vast advantages over the two named States in its production. Many writers have advanced the idea that Hemp, like Cotton, could not be grown by free white labor; and that its production would, for some time at least, be confined to the slave States. Nothing can be farther from the truth. The climate the very best adapted to Hemp growth, is found far north of the home of the negro, and where he would absolutely perish from the effects of climate. Hot, short, quick, forcing seasons of growth, just such as the region referred to actually possesses, are, of all,

best adapted to the plant-growth of this great staple, and the day is not far distant when the named States will be as noted Hemp producing States as Kentucky and Missouri ever were.

It is to be regretted that in our Census returns, Hemp and Flax have been confounded, but it may, however, be safely assumed that the growth and preparation of Hemp is so far below the actual consumption of the country as to assure the Iowa agriculturist of a continued good demand and paying prices for many years to come; and the experience of Kentucky and Missouri has fully proven that the production even of an inferior staple has been and is yet remunerative. The reader must bear in mind the fact that American Hemp is almost exclusively what is technically called dew rotted, that is, spread upon the surface of the earth and there rotted by the slow process of the elements. France grows more Hemp than Flax for the linen manufacture, and the finer grades of cordage and twines. The fibre is greatly superior to American, from the fact that her climate is of a lower temperature than that of the portion of this country that grows Hemp, and the further fact that she has abundant supplies of pure soft water for steeping in the rotting process; and the same is true of the Russian production. The soil of Kentucky is as well adapted to the growth of this plant as any in Europe or America, but there her adaptedness ends; her general temperature is too high and she is entirely destitute of water of the proper quality for the steeping process; hence all attempts to furnish our Navy from this State have been failures, notwithstanding that department has offered great inducements to her growers to water-rot. Iowa has certainly a climate much colder than Kentucky, and pure soft wa-

ter in her small lakes and streams without limit, and most certainly a soil equal in fertility to any on the globe. Why may not then her enterprising people reach forth their hands and lay hold of this prize, so well adapted to her soil, climate and situation. In the process of dew-rotting, the fibre, especially in warm climates, is materially deteriorated, and in some cases so far injured as to produce a very low grade of lint, unfit for anything but the very coarsest and lowest grades of bagging. This is especially the case when exposed to the dew process in open wet winters in Kentucky, thus proving that the true Hemp latitude is north of this State. Cold snowy winters, on the contrary, universally produce an improved quality of lint, always brighter and stronger.

CULTURE OF SEED.

The first step in Hemp culture is the production of good sound plump seed. Land intended for seed must be in good tilth and well prepared for planting by early corn-planting. It should be laid off in straight rows four feet apart each way and planted in hills, seven or eight seeds to the hill. The same rules observed for cultivating corn will apply in the after culture of Hemp seed. When the plants reach six or eight inches high, they should be thinned to from three to four plants. Hemp plants are divided into what the farmers call male and female, the former producing the pollen or impregnating powder, the latter bearing the seed. A very little observation will enable the growers to distinguish between them. As soon as they can be distinguished, the male should be drawn up by the root, except here and there a solitary plant left, that the female plants may be properly impregnated. The female is to be retained until its seeds are perfected, when it is to be harvested by cutting at the ground and removal to cover. When cured detach the seed with a stout stick of convenient length, winnow and put up in barrels or sacks, perfectly dry, out of the way of rats and mice.

PREPARATION OF LAND.

The soil for Hemp must be a strong calcareous, deep, warm, loamy, perfectly dry one, deeply and thoroughly prepared by plowing and cross-plowing until a fine state of tilth is produced, more or less according to its previous condition.

PUTTING IN THE CROP.

The ground having been faithfully prepared, the grower must hasten the operation of seeding with the utmost dispatch, as the earlier the

seeding, as a rule, the heavier the lint of the plant. Mark off the land with a small plow and very shallow furrow, or it may be marked off by a drag made of a small log of wood: anything to make a line to guide the sower accurately; then proceed by hand to broadcast your seed evenly at the rate of fifty pounds of seed per acre as the *minimum* or even up to seventy pounds as the maximum quantity, varying with the strength of the land; the object being to produce as thick a growth of plants as the land will sustain. If the plants set too thin on rich soil the stalks grow too coarse, producing a coarse and inferior lint; on the contrary, if seeded too thick the growth proves so short as to materially affect the value of the crop. In the latitude of the hemp-growing section of Kentucky the seeding is mostly done from the 1st to the 15th of April, and the land generally plowed the fall before.

In Iowa the seeding should be done as soon as the ground proves to be in good, dry working order; although the seed itself seems very tender and its vitality easily affected, and its germination after sowing often seriously disturbed by unfavorable circumstances, yet, when once above ground and fairly set, no ordinary frosts that destroy other vegetation, seem to affect it; hence, but little danger need be apprehended from late frosts, that prove so destructive to corn. The seed being sown, proceed to cover them up with a light harrow by running both ways to secure uniform results. The shallower the seed is covered in a moist soil, the more certain the vegetation. If the season and soil be dry, a somewhat deeper covering may be necessary. Under favorable circumstances, the crop makes its appearance in a few days, and with proper sun and moisture it rapidly covers the ground. From seed time until harvest, the laborer has only to watch its almost magic growth from day to day. After having once covered the ground the crop is generally considered safe by the grower, yet he is sometimes doomed to disappointment. Hail storms prove very destructive to the very tender watery growth of the young hemp plant; high winds damage the yield, but never entirely destroy the crop from seed time until harvest.

To be Concluded Next Month.

Writers of undeniable respectability state that the cereals and others of these edible productions grow spontaneously in that portion of Tartary east of the Belar Tagh and north of the Himalaya mountains.

EXPERIENCE.

We have so often requested our patrons to write more for the *Valley Farmer*, that it is with reluctance that we again revert to the subject. But so important a matter do we consider it, that we feel we shall be excused if we again allude to it. What is it that our readers most want? What information is most valuable? Is it not that which experience has demonstrated to be best? And it is that experience which we seek to obtain. We desire to get it from the farmers themselves. Has any farmer been successful as a wool grower? Then we want him to give us the system of management he has pursued. Has he been successful in raising wheat for a series of years? Then let him tell through our journal what course he has followed. And so we might go through the whole category of farming, and ask those who have been successful in any branch of agriculture, to give us the results of their practice.—Through the influence of horticultural societies we obtain the experience of fruit-growers. What a pity it is we have not got agricultural societies scattered broadcast over the land, carried on as are our horticultural societies. What a vast fund of valuable information would be disseminated that now lies buried.

We have thousands of readers who could impart valuable information if they felt disposed. They are restrained by a false modesty. They should bear in mind that they owe a duty to their brother farmers. They should let their lights shine, and not hide them 'under a bushel.'

Agriculture is an experimental and demonstrative science, and we solicit the experimental knowledge of farmers. It is this that will establish the truth or falsity of theoretical ideas. We presume farmers sometimes see ideas advanced in this journal, that they cannot subscribe to. It is their duty to controvert those ideas. They owe it to themselves, to their brother farmers, to the journal itself, and to truth, to state their objections, particularly if they can be backed up by experience. Our journal will always be open to such articles.

BAROMETER.—It is always to be remembered that what the barometer actually shows is the present pressure of the atmosphere, and that its variations correspond to atmospheric changes, the causes of which are not very well understood. No certain rules can be laid down for foretelling the weather from this instrument. No rapid changes of the barometer has any necessary and immediate connexion with either dry or wet weather, although storms of wind which effect the barometer are often attended by rain.

When the mercury continues to fall slowly and steadily for some two days, rain may be expected, and conversely, if it continues to rise steadily and slowly for about the same time, fair weather may be expected. The prognostications of rain and fair weather which are usually affixed to the scale of the barometer are entitled to no attention, and often serve to discredit this valuable instrument. Changes of weather are indicated, not by the actual height of the mercury, but by its change of height. Violent storms of wind are always preceded by a fall of the barometer, and one of the most general rules is, that when the mercury is very low, high winds may be expected.

BEE HIVES.

ED. VALLEY FARMER: Will you give your experience with bee hives? Whose patent is the best? I have been keeping bees in a small way for a few years, and wish to increase my stock and obtain the best hives. I would like to know something about the moveable comb hives.

S. W. Madison Co. Ills.

[REPLY.—We have tried most of the patent hives, but have discontinued their use. We had considerable hope that the Langstroth hive would prove to be just the hive that apiarians needed. And it would be, if the bees would build the combs as you would desire to have them. But they seem to be contrary creatures, and build them cross-wise, and glue the frames together, and glue these to the sides of the hives, so that it is almost impossible to get out the frames. The operation disturbs the bees and makes them cross. And it is so with all the movable frames.

So we have come back to the first principles. We give the bees a box containing a square foot of space inside, with cross sticks in centre to help support the comb. A cap is made to fit tightly over this hive. Within this cap boxes to contain the surplus honey are placed—of course communicating with the live by an opening of an inch or an inch and a half in diameter. When the bees fill the boxes with honey, they are taken away and empty ones put in their places to be again filled.

This is the simplest and best plan with which we are acquainted for keeping bees and securing honey. The hive and cap may be made together, and a door open behind to take out and put in the boxes. But the principle is the same. Scatter your hives about the premises, so that the moths will not be so destructive. Then watch your swarms closely, raising the hives two or three times a week, and destroying the larvæ of the moth. Bear in mind that you can succeed in no enterprise without labor, and that bees need care and attention in destroying their great enemy the moth. If you will do this, you can make bee culture profitable.—Ed.]

BONE MANURE.

Professor Liebig has demonstrated that one pound of bones produces in three years ten pounds of corn; one pound of guano in five years five pounds, thus giving the great preference to bone. It is estimated that in fifty years, from 1810 to 1860, 4,000,000 tons of phosphates were imported into England in the form of bones. Do we need to wonder why the "green fields" of England have become a proverb?

As the great agricultural nation of the globe, we are yet in our crude state, working the original soil of nature; and we have a long prospect of success before us. Our almost unlimited valleys are nearly exhaustless. The Mississippi is to become the permanent heart of the nation. Its soil alone will do this. But in other parts this wealth of soil does not exist. Here means have to be resorted to, to supply what loss there may be.

Who saves bones—among the most precious of manures? Who thinks of saving them?

"There is richness enough in the soil; the few bones are hardly a trifle."

And this same method of reasoning is applied to other manures. And thus our soils are slowly, but surely, impoverished.

It is hard for many of us to apply manure—to say nothing of the bones, and the refuse that are scattered about, and scattered where they become a nuisance.

The barn-yard manure (what is not taken by the rains and the atmosphere) goes back to the soil, and is thus saved. The grain, the beef and pork, however—are gone—and gone as so much strength of the soil. The bones, the general refuse of the farm, night soil, &c., can be returned to the land whence they came. But the beef and pork sold, is so much loss to the soil which produced them. So much is gone forever. This takes place each year. Now, there must be a restoration. Where shall we begin? Begin with the night soil, your hog pens, the bones, and refuse, and carcasses, and sewers—begin with any of these, and end (after they are all taken care of) with the barn-yard. This is only keeping your own so far as you can. You have not yet restored your beef, and pork, and grain, and hay, &c. To do this, guano is drawn upon, plaster, lime and the superphosphates. This is well. But this is not all. This will not restore your loss—and unless that is restored, your soil is going down. The sin of the father will thus be visited upon the child.

What next, to restore your soil? The question is not always easy to answer. This, how-

ever, may be said, that he who is the most successful in purchasing at the easiest prices and most convenience, is the most successful enricher of the soil. Plaster and charcoal will steal you manure from the atmosphere. This is clear gain. We have already told you in this journal, what grains and grasses do this best.

But we commenced with bone manure, and meant merely to make a statistic, to show the comparative value of bones. A few bones ground and sown have a wonderful effect—or only pounded, they will answer an excellent purpose.

Save the bones; put them into your garden; and they will be there for a long time—a real benefit, even without any other manure. We should be as saving of the fertility of our soil as of our timber. We are wasteful in both, where both are plentiful.

TOBACCO CULTURE.

The following is taken from the circular of Phelps, Caldwell & Co., of the Louisville Ky. Tobacco Warehouse.

THE SEED.—Among the various names we give the preference to the Blue Pryor. It does not produce as long leafy staple as many other varieties, but all things being equal, it yields a finer fibre and richer texture than most varieties, and is alike adapted to manufacturing and shipping.

THE PLANT BED.—In open weather in January, February or March, select a rich spot of virgin soil; clear the surface of all leaves, burn thoroughly, so as to destroy all wild weeds, then dig three or four inches deep, thoroughly pulverizing the soil, incorporating the ashes with the burnt earth; rake smooth, removing all litter, and sow at the rate of one tablespoonful of seed to one hundred square yards of surface. Mix the seed in dry leached ashes, say one quart of ashes to the spoonful of seed. It is best to sow the bed both ways—now rake again, then tramp with the feet, and cover with green brush, without leaves. Remove the brush after the frost is out of the ground and the plants begin to cover the bed.

THE PREPARATION OF THE SOIL.—This crop requires the best soil that you have. New ground or virgin soil yields the finest manufacturing leaf, but old, well manured land will give a larger yield and a richer, heavier article, which will be sought by the exporters. The soil should be thoroughly cultivated before the crop is planted. The ground having been well plowed and cross-plowed and harrowed, you will lay it off three and a half feet each way, and raise a small hill in the check. You are now ready for

PLANTING THE CROP.—This you will do the first season, after your plants are large enough—when the first leaves are three or four inches long, just as you plant cabbage, r.-planting, of course until you get a stand. You will find

many impediments in your way in getting a stand.

FIELD CULTIVATION will bring into requisition the plow and hoe. The ground should be stirred up at least once a week, and not a weed or sprig of grass should be permitted to show itself. The last step in this process, or "laying by of the crop," consists in drawing up the earth carefully around the plant with the hoe. At this stage your first planting will begin to come into top, or has attained sufficient size to be topped.

TOPPING is simply arresting the growth of the plant by taking out the bud, and is best done when the terminal bud alone has to be removed; if it goes beyond this point much of the strength has been expended in the formation of leaves that are lost. 'Prime' off all the under leaves up to the first good leaf, which is usually a hand's breadth from the top of the hill, then top, leaving ten leaves at the first topping and reduce as the season advances.

SUCKERING AND WORMING.—So soon as the growth of the plant is arrested by topping, it will grow out "suckers" just above the foot stalk of the leaves and around the main stalk. These, with the horn worm, will now demand your vigilant attention. Never let them get a start on you. Once a week will ordinarily suffice to keep them under. In the midst of this struggle, with these two formidable enemies you will find the first planting thickening and changing its color, losing some of its clear deep green. The leaf, if folded between the thumb and finger, will break readily. These are some of the evidences that it is ripe and ready for the knife.

The cutting process is very simple. Split the main stalk down to within two inches of the bottom leaf, then with one down stroke cut the plant off just below the bottom leaf, and in raising place it on the ground, resting on the top leaves, so soon as it "falls," gather up and lay eight or ten plants together with the hands to the sun. The best cultivators do not scaffold in the field, but hang on sticks, one end in the ground, and remove directly to the barn.

The curing of the crop is one of the most important steps in its whole treatment, and most difficult to describe in the space of a circular. If house room is plenty it may be cured with but little firing, indeed without firing, but if house room is an object, heavy firing is necessary; it is always necessary when a dark rich color is desired. Do not begin with large fires. Keep constant, gentle fires until you attain the desired color, then press your fires day and night until the entire leaf is thoroughly cured. It now hangs until you are ready for the next step, and until it comes in "case" for

STRIPPING.—Whenever the leaf is soft enough not to break or crumble in handling, "strike down" and bulk; removing the plants from the sticks, you lay it in bulk, the tail slightly lapping over to preserve the "order." Now, put your best judge of the article to sorting; he will take off all ground leaves, lungs or cullings, and the strippers will separate the different grades, putting the bright in one lot, separating the long from the short of the same class, the dark heavy shipping leaf to itself, the fine dark manufacturing to itself, &c. Tie in hands of

from five to seven leaves, wrap smoothly with a slip or short leaf, make the tie not over one inch and a half long. Hang on sticks and "hoist" in barn. When it has thoroughly dried and again comes in case or "prizing order," that is when the leaf is soft and the main stem is sufficiently dry to break readily for one-third its length, from the larger end, bulk down as follows: Raise a platform on your barn floor, cover with boards, over them a layer of dry straw, and lay one or two hands at a time, heads out, a course the length desired for the bulk; then a similar course so as to have the tails about meet, then a third course with heads about midway the first, and the fourth with heads midway the second, and repeat this process until the bulk is complete. Cover with boards and straw and put all the weights on practicable.

PRIZING.—Procure good strong casks, all of well seasoned timber, the drawn staves are the best; avoid poplar and all soft brittle wood for staves. The prizing process is an important one, and we recommend the following mode. Get a piece of board cut to fit the inside of the cask, say six or eight inches at the broadest point, lay this in the cask and pack the first course with the head against the straight edge of your board, the tobacco of course laid at right angles with it. This course being completed, place the board on the opposite side and pack as before; next place the board at right angles with its first position and pack as before—then opposite this last position and repeat the process, and so continue until the work is completed. You will always find straight samples drawn from hogsheds thus packed.

Never put into the hogshed more than one hand at a time, and let that be carefully straightened and pressed in the hands of the attendants of the packer before it reaches him.

If your tobacco is ripe, rich, and of fine fiber, from 1,200 to 1,500 pounds is enough to put in a hogshed. If very fine or bright, 1,000 pounds is heavy enough. In "turning out" your hogsheds, leave space enough to secure well the top head; see that it is well fitted and securely "lined," then nail all the hoops, and mark your name plainly on both heads and across the staves, putting on it your private number.

Note in your memorandum book the quality and order of each hogshed and furnish your commission merchant with a copy of it.

WEIGHTS OF PRODUCE.—The following are the established weights of various articles of produce, and the rates by which they should be bought and sold;

A bushel of wheat, 60 pounds; of shelled corn, 56 pounds; of corn on the cob, 70 pounds; of rye, 56 pounds; of oats, 36 pounds; of barley, 48 pounds; of potatoes, 60 pounds; of beans, 60 pounds; of bran, 20 pounds; of clover seed, 62 pounds; of timothy seed, 45 pounds; of flax seed, 56 pounds; of hemp seed, 44 pounds; of buckwheat, 52 pounds; of blue grass seed, 14 pounds; of castor beans, 46 pounds; of dried peaches, 33 pounds; of dried apples, 24 pounds; of onions, 57 pounds; of salt, 50 pounds; of coal, 124 pounds.

Cultivation of the Osier Willow.

The kind for cultivation is the French Osier or Basket willow, (*Salix viminalis*.) I am well aware that there are other varieties which can be grown with success, but an experience of eight or ten years in our country has proven that the *viminalis* is the best. Among some of the species which may be grown are the red or purplish-twigged osiers, (*Salix rubra*;) fine basket osier, (*Salix forbyana*;) white Welch willow, (*Salix decipiens*;) the purple-twigged willow, (*Salix purpurea*;) grown by Mr. Braman, Macedon Center, N. Y. The very idea of *viminalis* is tough, pliable, wiry; therefore Mr. B. must be mistaken in saying his brings the best price in market.

2d. SOIL.—“The soil for basket willow should be of a deep, sandy loam, well drained and thoroughly prepared; the situation ought to be low, level and naturally moist, and if there is a command of irrigation, so much the better.” In fact, there are many soils in which the osier will flourish; in a yellow loam with clay subsoil on some of our hills they have done finely. I have seen them grow ten to eleven feet in such situations; but what I should call a perfect situation would be a black-ash swamp, deep, black muck, which could be flowed at pleasure; but the ultimatum is richness and dampness.

3d. PROPAGATION.—All willows are, or may be, propagated by cuttings: at least there are but a few that will not take root readily. The sets should be eight or twelve inches in length, the lower ends cut square, the top in a sloping direction. They can be set as one's fancy dictates, from twelve to eighteen inches in the rows being three feet apart, or so as to have room to use a cultivator. The best time to set in well drained soils is late in autumn, for it will give the buds a chance to swell during winter—giving a vigorous growth in the spring. But on heavy soils the frost will throw out the sets; on such soils they must be set in the spring, the earlier the better. The sets are obtained by taking a year's growth and cutting in pieces the length you choose. The sets should be set perpendicular in the ground, top end up, leaving two buds above ground.

4th. MANAGEMENT.—Osier plantations must be carefully cleaned and hoed for three years at least; some keep them hoed every year.

5th. CUTTING AND DISPOSING OF THE CROP.—The proper season for cutting the basket willow is in autumn, directly after the fall of the leaf. The reason for cutting thus, is, it gives the buds a chance to swell during the winter, giving them an earlier start in the spring. As soon as the

rods are cut, they are generally tied up in bundles six to eight inches in diameter. If not intended to be used green or unpeeled, they should be set in water, thick ends down, to the depth of three or four inches, where they remain during winter and spring, until the shoots begin to sprout, when they are ready to be peeled. They should not be bound in bundles if they have leaves on, for the leaves cause a fermentation injurious to the willow; therefore they should be set up thinly, with something to lean their tops against.—[Ex.]

FOREST MANAGEMENT.

The following article, taken from the *Canada Farmer*, we especially commend to the consideration of Western farmers. We hope they will heed the views therein contained:

“Settlers in a new country very generally wage a war of extermination against the ‘trees of the wood.’ They come to look upon them as natural enemies and cumberers of the ground, whose inevitable doom is to be cut down and cast into the fire. Since their removal is the first step toward making a farm out of the wilderness, they sweep them away as rapidly as possible. The consequence is, that many stretches of country have come to be nearly, if not quite, as bare, as a Western prairie, on which no plant or shrub knee-high can be seen. A monotonous belt of woodland stretches away in the rear of the cleared portions of the farms through which the highways run, but beside that, scarcely a tree or grove diversifies the scene. This wholesale destruction of the forests of Canada is an evil that begins, at least in many localities, to demand a check.—Firewood grows scarce and dear, the landscape is becoming naked, it is difficult to procure timber suitable for various mechanical uses, the shelter needed by many crops in exposed situations is removed, and unfavorable climatic changes are taking place, which can be clearly traced to the wholesale and indiscriminate destruction of timber. A little exercise of judgment, forethought and taste, would mend matters very much. For example, why cannot some of the young wood be preserved when land is cleared, to form groups that shall at once ornament the landscape, furnish shade for stock when the scorching sun pours down its almost tropical rays, and act as a windbreak when cold and biting blasts sweep over the fields? It seems absurd to destroy every green thing and then set about planting anew. There are many choice forest trees that transplant with

difficulty, but which, left while small where nature placed them, become objects of surpassing beauty and great utility. What is to hinder the settler from availing himself of that best natural protection in bleak situations, the woody and leafy screen which he finds ready to his hand? How much comfort might be secured to the tenants of the dwelling and the farm yard, if the house and barn were surrounded by a grove? Why cannot the standing wood which is kept as a reserve for fuel be gradually thinned out, and so managed that it shall be an ornamental appendage to the farm and a favorite run for the stock? Moreover, is it not important that second growths of timber needed by the carriage builder, cooper, cabinet maker and others, should be encouraged, and in fact, forest culture made a department of farm economy and management? If we mistake not, these hints and queries open fields of reflection which many of our readers would do well to look at, especially at the present season of the year, when it so common to "cry havoc and let slip the dogs of war," in the shape of ruthless axes, wielded by relentless choppers, beneath whose fell strokes every twig and sapling quickly disappears.

There is not only great need of intelligent forest management on the farms scattered up and down the land, but the preservation of trees upon the sites of towns and villages is a most important matter. Nature has made many of these sites indescribably beautiful.—Centuries have been occupied in the growth of graceful and magnificent trees; hill, plain and valley diversify the surface of the land, and sparkling rills flow musically through the sylvan dells. All is lovely till man invades the scene. Full of utilitarian ideas, bent on speculation, and having no eye for natural beauty, the founder, or founders, of a new town or village allow, unchecked, raw emigrants and ignorant day laborers to begin and carry on the work of spoliation and disfigurement. Grand old oaks, graceful elms, beautiful pines, hemlocks and balsams, which furnish ornament and shade, such as generations must wait for from human planting, are mercilessly felled; the royal head of every monarch of the forest is humbled to the earth, and no vestige of a tree is left, except the unsightly trunks that, piled one upon another, form the habitations of the Goths and Vandals that have conquered the region. When the destruction is not thus complete at first, and here and there a few trees are left, some idle shanty

man or stupid road-master will destroy what settlement and time have spared. We have in our eye at present a Canadian town of some size and age which has many noble elms, maples, beeches, balsams and hemlocks in its environs, which are rapidly disappearing in the way just hinted at. Surely proprietors and municipal authorities ought to interfere and put a stop to the wholesale destruction and pillage of beautiful and valuable timber."

HOW TO KILL GOPHERS.

N. J. COLMAN, Esq.—*Dear Sir:* Can you inform me how I can get rid of gophers. They are ruining my meadows. Last year I could not cut grass with my machine, on account of the little hillocks they made. D. H.

St. Louis County, Mo.

[REPLY.—Go to a drug store, and get a small vial of strychnine. Put a potato in your pocket, and carry both with you while on the farm. When you see a fresh mound, open it, till you reach the run or passage-way of the gopher. Cut off a small piece of potato, open it partially and put in a little strychnine, and then put the piece in the opening made by the gopher. It will come along and eat the piece of potato, and that will finish its labors. We have known several gentlemen to rid their farms of these pests in that way.

We have often practiced catching them in steel traps. We make an opening where the mound is made of about one foot square, deep enough to be below the run of the gopher. In the bottom of the hole and close to the run or passage-way, we set a common steel trap, covering it with loose soil. Over the hole which has been dug, place a plank and cover it with earth, so as to exclude the light. The gopher will come along to see what has been done, and stepping on the trap, springs it, and gets caught. We have caught a great many in this way.—Every farmer should wage a war of extermination upon them. They do great damage to meadows, hedges, &c.—Ed.]

TWO COATS OF MANURE.—To cover grass land very thick with manure is to suffocate the grass. And yet poor land needs the heavy coat. To remedy this, apply two coats. This, a neighbor says, has the best of effect. He had a yellow ridge that grew grass but poorly. He gave it a coat of manure; the crop was considerably improved. The year following he gave it another coat. This last was the great improvement—grass as heavy as could grow. He applied his manure the previous fall, as soon as the crop was gathered. When the second coat was applied, the first was pretty well mixed with the soil, so that it interfered not the least with the next application.

[Written for the Valley Farmer.]
SELLING PRODUCE.

Most people are well aware that hay and grain, if sheltered, sustains but little loss in keeping. About every four or five years, owing to light crops, foreign demand or other causes, prices come up to figures that ought to satisfy any producer. But you say you cannot store it and lay out of the use of money so long. Well, then sell it for the market price, and don't grumble or go crazy about it. If a farmer is independent, as he ought to be, he need not sacrifice many crops at ruinous prices to get the means of storing right smart. Corn can be cribbed with little expense (if you do not forget to cover it), and if your granary is not large enough, go according to Scripture—"tear down and build greater."

The farmers in Northern Illinois who, one year ago, concluded it would not pay to sell corn at 10 or 15 cents per bushel, "hit the nail on the head." I expect ere another corn harvest that vast amount of cribbage will be shelled out, and those that stored it, instead of rolling it on the market, were benefactors.

In mixed husbandry, something will uniformly hit. In proof of this, the other day, while driving along the street, I hit a cow belonging to one of my neighbors, who had more stock than room inside—its leg was broken, I gave him another for some other person to hit. But to return to my subject: You have observed that we lack in the West many of those conveniences which it is our duty, as well as privilege, to have. The land fever has kept us in poor tenements. We have often misused our stock; forgotten to plant fruit trees or vines, or if planted, neglected their culture, leaving them to chance. Careless, however, as we are, we can boast as rapid an improvement as any other section of our once happy country. H.

TO MEASURE AN ACRE.—We find the following going the rounds. It may be useful to some of our readers: "Land, 30½ square yards make one square rod; 40 square rods make one square rood; 4 square roods 1 acre; 640 acres, 1 square mile; 4,840 square yards, or 160 rods, make 1 acre. In measuring an acre by yards, the usual practice is to trace off 70 yards in length and 70 yards in width. This in a rough way, may be considered near enough for practical purposes; but as 70 yards either way make 4,900 square yards, it exceeds one acre by 60 yards. To determine an accurate acre it may be measured 70 yards in length by 69 1-7 yards in width. The same result may be arrived at by measuring 220 feet in length; and 198 feet in width, or by measuring 73½ yards in length by 66 yards in breadth."

COTTON CULTURE IN MISSOURI.

ED. VALLEY FARMER: I give you the result of a small experiment with cotton last season:

Planted about ⅓ of an acre. Gathered in the seed—330 lbs., fair and of excellent fibre.—Three lbs. in the seed will make 1 lb. of clean cotton. In the South, the proportion is one to four—the difference resulting, perhaps, from difference in weight and number of seed.

As soon in the spring as the ground was in good condition, it was thoroughly plowed and harrowed. The furrows were made at four feet distance with the foot of a shovel plow, the plow being taken off in order to obtain a shallow furrow. The seed were dropped thickly, with the view to ultimate thinning, and covered slightly with a one-horse harrow. They came up finely, and the subsequent culture consisted in two plowings with the shovel plow, two hoeings by hand, and one harrowing between the rows; the object being to keep the surface thoroughly stirred and clear of grass, and also to keep it level.

The result was considered favorable, and the management may be of interest to some one who desires to experiment with the crop. A. M. C.

Evergreens—Moles—Squirrel Skins.

ED. VALLEY FARMER: I would be pleased if you would answer the following queries.

1. When is the proper time for pruning evergreens, particularly the Norway Spruce. Would it not be of sufficient interest to many new readers to devote an article to the management of evergreen trees and shrubs?

2. What is the best plan for extirpating moles on a farm, or preventing them from running through and rooting up the ground? They are getting to be an unmitigated pest—next after the Norway rat in this section.

3. Is there any market value for squirrel skins—is there any call or demand for them? The boys frequently ask me: "Are squirrel hides worth anything?" but I am unable to inform them whether they possess any commercial value or not. I know that when they are well dressed, they could be made to subserve many useful purposes. Buckskin is so scarce, I don't see why they should not be made to enter largely into the manufacture of buckskin gloves—for it is as strong and tenacious as genuine deer skin. I see it asserted that rat skins are used as a substitute for kid, and I don't see why squirrel skin should not be made a substitute for buckskin in the manufacture of gloves. For farmers it is very useful, when skilfully dressed, for "whangs" for mending broken bridles, harness, &c.; for shoe-strings; and for foxing yarn mittens (that is, for sewing on the palm of the mitten, for the purpose of protecting it from wearing out—rough work wearing mittens out quickly unless thus protected). Nearly everybody, in the country, kills a great

er or less number of squirrels, the skins of which are stripped off mostly and thrown away—which looks like wanton waste. Boys love to hunt; but ammunition being sold at extortionate rates, parents are rather loth to supply them with this much desired article. Now, if they possessed a market value, and there was sufficient demand to justify the saving of them, and their value and demand generally known—why, then, boys could command means of their own to supply their wants in this line. Notwithstanding, they are made to pay \$1.50 per lb. for powder, 25 cents per lb. for shot, and 15 or 20 cents for caps per box of 100. This is a small matter to bring to your notice—but life is made up of small things—the many small things constitute the great whole. The small raindrops collect into rivulets, the small rivulets flow into creeks, the creeks into rivers, and the rivers into the great ocean.

H.

[REPLY.—1. The best time for pruning evergreens, is about the first of June. We will endeavor to find time to prepare an article on the management of Evergreen Trees and Shrubs. The management, however, is very simple. The most important point in growing evergreens, is to have the ground well prepared before planting by deep trenching, and then keep the ground spaded and well worked about the trees afterwards, for a distance of several feet. Evergreens need but little pruning; none, except to keep them well proportioned and in proper shape. Where mulching can be applied, it is of great value.

2. One way of dispatching moles, is to drop small pieces of vegetables in their runs, containing a little strychnine. We have a trap, presented to us by Mr. E. A. Riehl, which kills them off very rapidly. The top of the run is pressed down, and a dead fall is prepared, the trigger resting on the pressed-in earth. Over this is placed a small piece of plank, containing long, sharp spikes. The mole, coming along, finds the run stopped up, and raises the earth in forcing a passage, which springs the trigger. The weight falls upon the plank containing the spikes, which are driven into the earth and through the mole. The trap is an excellent one.

3. We know of no one purchasing squirrel skins. You have, certainly, very eloquently described their merits. Your views are worthy of consideration.—Ed.]

♦♦♦
Oats originated in North America.

Rye came originally from Siberia.

Farsley was first known in Sardinia.

The pear and apple are from Europe.

Spinach was first cultivated in Arabia.

The sun-flower was brought from Peru.

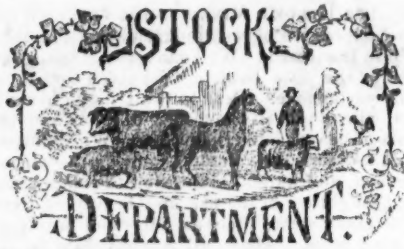
The poppy originated in the East.

UNDER HIS OWN VINE AND FIG TREE.—What more expressive of rest, independence and lordship in the earth. Well may the Arab reverence in the date palm a God-given source of daily sustenance. Dear to the Hindoo his banyan, wherein dwell the family of man, and the birds of heaven build their nests. Without trees what a desert place would be our earth—naked, parched, and hateful to the eye. Yet how many are thoughtless of the use and beauty of trees. How many strike their ax idly and wantonly at their roots. Above all other things in the landscape we would deal gently with trees. Most beautiful where and as God plants them, but beautiful even as planted by the poorest art of man. If he is a benefactor who causes two blades to grow where but one grew before, how much greater his beneficence who plants a tree in some waste place, to shelter and shade, to draw hither song-birds, and to bear fruit for man. Plant trees, O man, that hast waste land—and be careful of those that are planted.

♦♦♦
A CUBIC FOOT of Platinum weighs 1271 pounds; pure Gold, 1204; Mercury, 849; Lead, 709; Silver, 655; Bismuth, 614; Copper, 549; Brass, 489; Bar-iron, 487; Cast-iron, 450; Tin, 456; Zinc, 429; Antimony, 419; Arsenic, 360; Emery, 250; Diamond, 220; Limestone, 198; Flint-glass, 183; Chalk, 174; Marble and Alabaster, 170; Granite, 166; Millstone, 155; Grindstone and common Salt, 134; Brimstone, 127; Common soil, 124; Brick, 119; Ivory, 114; Lignum Vitæ, Ebony and Box, 83; Coal, 79; live Oak, 70; Amber, 67; Mahogany, 66; Water, 62½; Logwood, 57; Mulberry, 56; Apple, Beech, Ash and Hickory, 50; Maple and White Oak, 47; Elm, Walnut and Cherry, 40; Yellow Pine, 35; White Pine and Poplar, 30; Cedar and Cypress, 28; Cork, 15; Sugar, 100; Beeswax; 60 Butter, Tallow and Lard, 59 pounds.

♦♦♦
A PRODUCTIVE FARM.—A. C. Fulton, residing near Davenport, Iowa, writes to the *Prairie Farmer* that his gross receipts from sixty-two acres of land last year amounted to \$10,111. The net profit was \$7,905, after deducting three dollars per acre for interest or rent of land—besides cost of seed, labor, and all other expenses. This gives the extraordinary sum of a little over \$127 per acre. The farm is on first quality of rolling prairie land, broken up in July, 1862 at a cost of \$2.50 per acre. A large portion of it was replowed before seeding. Twenty acres were planted in wheat and corn, the balance in onions, potatoes and sorghum. The larger portion was taken for onions, the seed being put in with a hand drill. It is hardly necessary to add that the land was thoroughly worked. There were also excellent facilities for marketing. Portions of the crop were sold at Davenport, and the balance sent by railroad to Chicago.

SHEEP should be kept under sheds, and their fine condition maintained by a feeding of about half a pint of corn daily to each, giving less early in winter, and more towards spring. A small regular feeding of roots would assist in keeping up their excellent condition.



MISSOURI AND ILLINOIS WOOL GROWERS' ASSOCIATION.

Pursuant to a call issued by a number of the Wool Growers of Missouri and Illinois, a convention was held in the Probate Court Room in the city of St. Louis on the 17th of February.

On motion, Henry T. Mudd was called to the chair temporarily, and Norman J. Colman appointed Secretary.

At the request of the chairman, N. J. Colman stated the objects of the meeting.

He said the principal object at this time was to organize a society. In every pursuit we derive benefit from the experiences of others.—There would be but little progress in the world if every man relied solely upon what he did and saw. In all enlightened nations, associations of almost all kinds had been formed, and the most beneficial results had been derived from them. Our object at the present time is to organize and thus associate intelligence and experience in sheep husbandry, knowing that good must be derived therefrom.

There are many subjects that will properly come up for consideration before such a society. For instance, which is the most profitable breed of sheep for Western farmers. There is considerable dispute upon this point, and when the merits and demerits of the various breeds are discussed, the unprejudiced can make up their minds as to which breed they will prefer. Such a society will also make men engaged in sheep husbandry acquainted with one another, so that an exchange of sheep can be made, or sales can be effected. The diseases of sheep, and the remedies therefor, will also come up for consideration at some of our future meetings.

The propriety and indeed the necessity of the several States or of the National Government passing a law, imposing a tax upon dogs, should be considered—for dogs are the bane of the wool grower. In nearly every Western State dogs do so abound that sheep husbandry is almost abandoned. The loss of sheep by dogs annually is immense, and protection is loudly demanded.

The propriety of washing wool on the sheep, is another subject which will elicit some discussion.

Such a society as this can do much towards regulating the prices of wool. We are satisfied that wool, in Missouri particularly, has always been sold at less than its real value. The wool growers have been so scattered about the State and were so hard to find, that there could not be that competition there ought to be, and the wool had to go at the buyer's figures. If necessary, the members of this society can store the wool in Saint Louis in such quantities that it will be a matter of some interest to purchasers, and a lively competition can be got up among buyers, and the full market price obtained.

On motion, a Committee of Three was appointed to draft a Constitution, with instructions to report the same as the first business in the afternoon session. Said committee consisted of N. J. Colman, W. S. Jewett and Thos. G. Settle. Some informal discussion was then had, when the morning session adjourned.

AFTERNOON SESSION.

The Committee appointed to report a Constitution for the organization of the Society, reported the following

Constitution.

Art. 1. This Society shall be known as the Missouri and Illinois Wool Growers' Association.

Art. 2. Its object shall be the consideration and discussion of questions relating to sheep husbandry.

Art. 3. Any person may become a member by the payment of *One Dollar*, and signing this Constitution.

Art. 4. The officers shall consist of a President, Treasurer and Secretary, who, in connection with two other members to be elected by the Society, shall constitute an Executive Board, charged with the direction and control of the affairs of the Society, subject to its instructions; they shall hold their office for one year, and until their successors are chosen.

Art. 5. The Society shall hold its annual meetings on the second Tuesday of February of each year, and special meetings on the call of the President or Executive Board.

Art. 6. This Constitution may be amended at any regular meeting by a two-thirds vote of the members present.

Dr. L. D. Morse moved to amend the first Article by striking out the words "and Illinois."

Mr. W. S. Jewett opposed the motion, contending that the interests of the wool growers of both States were identical, that we wanted

the Illinois wool-growers to meet with us and to feel at home in this Society. He said, we wanted the united experience of the wool-growers of both States, and as St. Louis was a common centre to both States, he was anxious that the Constitution should be adopted as reported, believing that the greatest amount of good could be derived therefrom.

Dr. Morse and Dr. Henderson of Missouri, and W. C. Flagg of Illinois, favored the proposed amendment—the two former gentlemen stating that State pride had something to do in shaping their views.

Mr. N. J. Colman was opposed to the proposed amendment. He was very solicitous to have the wool-growers of both States, in this Society, upon the same footing. The call for this meeting was made by the wool-growers of both States, and he thought we should be unjust to Illinois if the amendment was adopted. In Missouri we have not as large experience in the wool business as they have in Illinois. Some of the largest wool producers in the United States are in Illinois, and some of the best bred flocks are to be found there. Missouri is better adapted to the wool business he believed than Illinois, and eventually would stand as one of the first wool producing States in the nation, but that day has not yet arrived.

The question on the proposed amendment being put to vote, it was lost, and the Constitution was adopted as reported by the Committee.

The Society then proceeded to the election of Officers for the ensuing year, and the following gentlemen were duly elected:

President, Richard Gentry, of Pettis Co. Mo.

Secretary, N. J. Colman, of St. Louis Co., Mo.

Treasurer, W. C. Flagg, of Madison Co. Ill.

W. S. Jewett and Thos. G. Settle were elected as Members of the *Executive Board*.

Mr. Colman offered the following resolution, which was adopted.

Resolved, That a Committee of Three be appointed to prepare a bill to be submitted to the next Legislature of Missouri, for promoting the interests of wool-growers and for protection against dogs, and that said Committee memorialize the Legislature in favor of passing said bill.

The following gentlemen were appointed said Committee: N. J. Colman, Richard Gentry and Thos. G. Settle.

Mr. W. S. Jewett offered the following resolution, which was adopted:

Resolved, That a Committee of Three be appointed to memorialize Congress to so amend

the Internal Revenue Laws, as to impose an annual tax upon dogs, with a view of protecting sheep, by the destruction of dogs.

The following named gentlemen were appointed to carry out the resolution: W. S. Jewett, Dr. W. W. Henderson and W. C. Flagg.

Mr. A. S. Merritt offered the following resolution, which elicited a very interesting discussion. The vote being taken upon it, the resolution was lost.

Resolved, That, in the opinion of this Society, washing is injurious to sheep, and of no advantage to the wool, and that the custom ought to be abolished.

The following resolution offered by Mr. Jewett, was adopted.

Resolved, That a Committee of Three be appointed to confer with the military authorities in regard to letting loyal persons in the wool growing business be permitted to have firearms (as far as consistent with military regulations) for the purpose of killing wolves, dogs and other enemies of the sheep.

W. S. Jewett, A. S. Merritt and Dr. L. D. Morse, were appointed said Committee.

A very interesting report on the Cashmere Goat, was made by a gentleman who had traveled through various parts of Asia. In the same latitude as our own State, they thrive, and he felt satisfied they would be a great acquisition to the wealth of Missouri if introduced.—We shall endeavor to obtain the report for publication.

Mr. Gentry, the worthy President elect, at the solicitation of the members of the Society, gave a history of his sheep operations, running through a period of 22 years. It was listened to with great interest and profit. Mr. Gentry is not only the largest and best wool grower in the State, but is also the largest farmer, and his farm of over 7,000 acres, when we visited it a few years since, did not contain in the meadows or pastures a single weed that we could discover. We then published a description of the farm and of Mr. Gentry's operations.

We shall endeavor to publish the remarks of Mr. Gentry on Wool Growing, and some of the discussions, in a future number of our journal, but we have not space or time to write more for the present number. We got up from a sick bed at the risk almost of our life, to be present to aid in organizing a Society. The Society is organized, and is a live institution, and we trust will be productive of great good to the wool-growers of the Great West.

BOTS IN HORSES.

One of our subscribers sends us the following selected article for publication :

Some articles appearing lately in your paper, on the subject of Bots in Horses, induces me to offer a few ideas of my own on the subject. I do not believe that the grubs called bots, in the stomachs of horses, are ever the aggressors in their attacks upon their habitations. Man alone has the honor of insanely destroying their habitations and themselves with them, as ill passions have often lead them to do. Brutes and insects are governed by laws of instinct, ever true and faithful to self-preservation. That bots should attack the horses' stomach and destroy it with themselves, under any other law than that of self-preservation, is utter absurdity. If you feed a horse freely and over-work him, or by any other cause the stomach is rendered incapable of digesting its contents in proper time, fermentation must necessarily set in rapidly on the remainder, in which carbonic acid gas is generated. This produces the double effect of inflating this organ ; creating the disease called colic, and of producing the suffocating effect upon the bots within, to drive them to an effort to escape, and hence attack the stomach to cut their way out, producing the disease called bots. Both of these diseases, I apprehend, are from the same cause.

REMEDY.—Acting on the above theory, I have for many years applied the true chemical remedy to meet the complaint, with pretty general success. The alkalies are ready absorbents of carbonic acid gas, and none are more active than potash, or ley from common wood ashes, which is always on hand in every kitchen chimney, or at the door of every farm house.

APPLICATION.—Drench the horse with a quart bottle of ley, of half the strength used in making soap, and if done in the early stage of the attack, it will relieve the worst cases ; or, fill it (a common porter or wine bottle) half with fresh ashes, and then fill with warm water, well shaking it, and applied as above. To drench the horse, draw his mouth up high by the bit over a high rail or limb of a tree, when he can be made to swallow the potion.

How the bots gain their habitation, is a thing I shall not investigate. There is something very singular in some things I have learned of them. A respectable farmer in the neighborhood of this place assured me a year or two since, that he had a mare and foal die at the latter's birth, and on opening the colt, its stomach was found filled with bots.

CROUP IN CATTLE.

Croup usually occurs among young animals, yet *Claude* relates a case occurring in an ox, nine years of age. Young animals, no doubt, often die from obstructions within the air-passages, and after death the larynx and trachæ, are found to be occupied by a quantity of semi-organized lymph ; such cases are known to veterinary surgeons as membranous croup ; in some cases these false membranes are found to occupy the intestinal canal as well as the air-passages.

Symptoms.—In the early stages of the malady it will be discovered that there is some difficulty in respiration, and that the difficulty is seated in the region of the throat. Later in the progress of the disease, the animal will appear in imminent danger of suffocation, in consequence of the air-passages being occupied and fast filling up with a morbid secretion. The only chance now of saving the animal, is to perform the operation of tracheotomy, but should the false membrane have formed low down within the trachæ, the operation may not be successful, yet, on the score of humanity, and believing "as long as there is life there is hope," it should be resorted to. Should it be ascertained that the obstruction to respiration exists at the upper part of the trachæ or within the larynx, then such operation is sure to afford relief. After the introduction of the tracheotomy tube, the mouth and throat are to be gargled or sponged with a portion of solution of nitrate of potass, twice or three times daily. The throat should be rubbed externally with cod liver oil.

The following medicine is probably the best that can be used. Take of chlorate of potass two ounces, water one pint ; when the potass is dissolved, give a wine-glassful every hour.—*[Dr. Dadd.]*

HIGH PRICE FOR SHEEP.—Mr. D. C. Hillman, of Washtenaw Co., a few weeks since, sold 140 Spanish ewes for \$1,000, which is a trifle over \$7.14 per head. A short time since, Mr. Luman Gilbert, of Ontario Co. N. Y., sold a flock of last spring ewe lambs (Spanish) for \$20 per head—at that rate, 140 of them would amount to the snug sum of \$2,800. The buck, the lambs were raised from, sold at the same time for over \$100.

DAMAGE TO SHEEP.—In the report of the State Board of Agriculture for Ohio it is stated that the number of sheep killed by dogs, in 1862, was thirty-six thousand seven hundred and seventy-eight, and during the same period, twenty-four thousand nine hundred and seventy-two were injured—the total value of the canine destruction being \$136,347.

Quarter-crack in the Horse's Foot.

A subscriber who has a horse troubled with quarter-crack inquires in regard to its cause, remedy, etc. In Mayhew's work on the Horse we find this disease treated at length, and from it we draw the following particulars. He says any cause which weakens the body of the horse by interfering with the health of its secretions may induce sand-crack. Treading for any length of time upon a floor from which all moisture is absent, by rendering the horn hard or dry, may cause the hoof to be brittle and give rise to sand-crack. Sand-cracks are of two sorts. Quarter-crack, which chiefly happens among the lighter breed of animals; toe-crack, which occurs principally with cart-horses, and mostly with those which work between the shafts. Quarter-crack is more generally met with in fast horses, and is usually situated upon the inner side of the fore foot. It is of less importance than toe-crack, and is oftenest seen upon the inner quarter of the hoof, where the horn, being thinnest, is most subjected to motion. It usually commences at the crown of the hoof that is, where the hair ends, and extends to the sole. A horse thus affected should be placed loose in a large stall, or box, and receive soft, nutritious food, such as boiled oats, scalded hay and grass. Greased rags should be placed over the hoofs and under the sole, and a hot iron may be drawn across each end of the crack to prevent its extending. He recommends paring away the edges of the crack with a sharp knife, as by thus doing, and keeping them clean and smooth they will be more likely to unite. The horse should have all the rest possible, and if used the foot should be thoroughly cleaned before he is put in the stall. This is one of the most common of the many diseases to which the horse is liable—diseases which are not necessarily peculiar to him, but which are in most cases the result of misuse and improper treatment. The author above quoted says that rapid driving is the chief cause of the lameness and disease of most of our horses, and of their swift decay and early death. Overloading them is another cause, but not the chief one. It often causes lameness and induces diseases, and some of them of the most painful and disgusting character, such for instance as the glanders—but rapid driving is the fruitful source of lameness and disease in the horse.

CAUSE OF FISTULOUS WITHERS.—Various are the causes assigned, by veterinary writers, for the origin of fistulous withers; but it may be laid down, as a general rule, that this accidental, local affliction is occasioned by local injury inflicted by a bad fitted collar or saddle; which, one or the other, are continually worn, and are constantly augmenting the irritation. In fitting a collar or saddle to a horse's back or shoulders, the harness-maker should study the conformation of the parts to be fitted, so as to distribute an equal pressure on all the bearing parts. Unequal pressure is usually attended or followed by local injury, inflammatory tumor, and supuration; and the result is "fistulous withers."

A PULLING HORSE CURED.—In good old times when brick ovens were in fashion, my uncle had a goodly pile of oven wood near his shed door. A mischievous cousin brought the horse and hitched him to one of the shed posts, directly in front of said pile of wood. Now this horse was possessed of inveterate pulling propensities. Leaving him, and returning with the saddle, he found him settling back upon the halter with all the nerve and strength he could bring to bear. It was but the work of a moment to take out his knife and cut the rope. Over went Mr. Horse, in a twinkling, floundering among the oven wood, and looking considerably chop-fallen over the sudden "change of his base." He never afterward was known to pull, as long as kept in the family.—[*Rural New Yorker*.]

WATER FOR THE SHEEP.—A very false notion prevails among farmers as to whether sheep require water in winter; some asserting that they have need of none at all, in any form, and others that they are able to slake their thirst by eating snow. No theory could be more erroneous. The physical constitution of the sheep, in this respect differs not from that of other domestic animals, and it has immunity from thirst no more than they. By certain experiments on this point, recently made by Mr. Lawes, of England, it was clearly established that sheep do require a considerable amount of water—the average being 40½ lbs. per week, or nearly 6 lbs. per day for such as were kept on dry feed.

SALT.—Salt is not perhaps quite as necessary to the health of sheep in winter as in summer, but still all good shepherds regard it as indispensable. It should be fed as often as once a week, in the feeding-troughs, or by brining a quantity of hay or straw. The Vermont breeders almost universally keep it standing constantly before their sheep in boxes placed in the sheep-houses. My friend Gen. Otto F. Marshall, of Steuben County, New York, has an excellent and economical mode of feeding it. The orts when taken from the sheep racks are thrown into a box-rack, wider and considerably higher than the common ones, and placed under a shed. The orts are sprinkled with brine, and the sheep when hungry for salt go to the ort rack and consume them. Then all the hay is saved.

HOVEN IN CATTLE.—*Ed. Valley Farmer*: I see in your journal, that you give several remedies for the above complaint, all of which are troublesome, save the knife. A more simple and certain remedy is to give a few nubbins of corn—this I have never known to fail, if given in time or while the animal can stand. I know of others that have practiced the same with entire success.

J. G. SPRAGUE.

Greenville, Ill.

Grease, or Scratches on Horses.

Scratches, as this disease is commonly called in New England, is not dangerous, or difficult to cure, unless neglected by the grossest carelessness and abuse. It is occasioned, sometimes, by cutting the hair from, and thereby exposing the hinder heels to the operation of cold and wet. In winter when the legs most require warmth and protection, the heels are deprived of the covering which nature intended should protect them, and parts where the blood flows most tardily are laid bare to the effects of evaporation and frost.

Turning out to grass, especially during the colder months, when the wet is particularly abundant, and the bite short, is another fruitful source of this affection. Allowing the mud to remain on the parts after the horse is returned to the stable, and a general neglect to keep the feet and legs clean, is, perhaps, the chief cause of this painful disease.

The earliest symptoms of "grease" is the cracking of the skin of the fetlock, very much as the hands become "chapped" in cold weather. The legs then swell, accompanied by more or less fever. If the hair should be examined, it will be discovered loaded with scurf about the roots, while one foot will be frequently seen employed to scratch the back of the opposite leg. At the same time, the part begins to exude a thick, unctuous moisture, from which the disease derives its name. This hangs upon the hairs of the heel in heavy drops. It is an offensive secretion.

Should no regard be now bestowed upon the sufferer, and the horse worked on despite the lameness, the skin swells, white cracks, deep and wide, appear upon the inflamed integument, the lines of division ulcerate, sometimes very badly, and a thin, discolored and unhealthy pus mingles with the discharge.

The remedy for this disease is simple enough, but the *preventive*, cleanliness, is still more easy. Wash the parts in warm suds of castile soap, rub them with some soft, fresh oil, with the fingers, and keep the horse warm and quiet.

Mayhew, in his excellent work, "*The Illustrated Horse Doctor*," recommends the following, to be used three times each day, viz.:

LOTION FOR THE EARLIEST STAGES OF GREASE.

Animal glycerin, half a pint.
Chloride of zinc, half an ounce.
Water, six quarts.

LOTION FOR THE ULCERATIVE STAGE OF GREASE.

Chloride of zinc, one ounce.
Creosote, four ounces.

Strong solution of white oak bark, one gallon.

But, we urge again, a humane care of the animal—when this is observed, the disease will never appear.—[*Ex.*]

PRESERVING BUTTER.—The farmers of Aberdeen, Scotland, are said to practice the following method of curing their butter, which gives it a great superiority over that of their neighbors: "Take two quarts of the best common salt, one ounce of sugar, and one ounce of common saltpetre; take one ounce of this composition for one pound of butter, work it well into the mass, and close it up for use. The butter cured with this mixture appears of a rich marrow consistency and fine color, and never acquires a brittle hardness nor tastes salty. Dr. Anderson says: 'I have eaten butter cured with the above composition that has been kept for three years, and it was as sweet as at first.' It must be noted, however, that butter thus cured requires to stand three weeks or a month before it is used. If it is sooner opened, the salts are not sufficiently blended with it, and sometimes the coolness of the nitre will be perceived, which totally disappears afterwards."

HOW TO MAKE BUTTER IN WINTER.—A subscriber sends the following: "Strain the milk in pans, set them on the stove till the milk is near the scalding point, then set the pans away.—The cream will rise quicker, the milk can stand longer without souring, and the churning will be a short job. I prefer the flavor of milk thus treated, and know it to be a healthy drink."

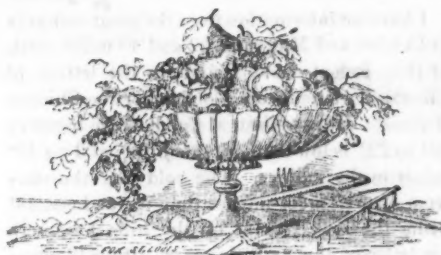
SHORT HORN CATTLE FOR KANSAS.—Messrs. John & Henry Moler, of Anderson County, Kansas, are now in this city (St. Louis) on their way to Kansas, with some very fine Short Horned Cattle, all bought of Mr. Robt. George Dunn, of Plumwood, Madison Co. Ohio. They have—1 Durham Bull, Duke of Marengo,
1 " Heifer, Felica,
1 " " Roseleaf,
1 " " Lady Lute,
1 " " Hawthorn Bloom.

These are all remarkably fine animals, and we congratulate the farmers of Kansas, upon this accession to their stock of Durhams. We are glad to see the enterprise of the Messrs. Moler, and hope it will meet with its reward.—Kansas is destined to become a great State. Its farmers are a reading people. We have already a large circulation of the *Valley Farmer* there, and it is constantly growing.

A subscriber sends the following:

FOR BURNS AND SCALDS.—Poke root sliced up and fried in hog's lard, then anoint with the oil.

FOR LICE ON CATTLE.—Tar & woolen string, tie round the animal's neck, and it will take them off.



HORTICULTURAL.

Deep Culture for Fruit Trees.

The longer that horticulture is pursued as an art, the more impressive become the teachings of experience in that art in relation to the great importance to be attached to a more thorough preparation of the soil for horticultural products. The turning over of the earth to the depth of five or six inches has been considered ample preparation for fruit trees or small fruits by most cultivators, and particularly beginners.—Those who have pursued horticulture, however, for a series of years, and have experimented in the cultivation of their soils, have learned that deep and thorough preparation of the soil for all crops is most profitable. Perhaps they have not learned the reasons why deep culture is preferable to shallow—but their pockets back up their experience, and with many people, when the proper results are obtained, the causes that have produced them are of but little consequence.

As the season of planting is now at hand, we propose to allude to some of the reasons why the soil should be deeply cultivated for the reception of trees and plants. In land as commonly prepared, there is but little room for trees to extend their roots, and obtain food.—The trees consequently become stunted and lead a sickly existence. They yearly make but little growth, even if they keep healthy, and are double the number of years in coming into bearing that trees are when planted in a soil well prepared for them. A great loss of time is experienced, which of itself is an item of no little consequence. Or if the tree, by being stunted and dwarfed, is thrown into bearing—its fruit is small and inferior and quality poor, and the amount produced trifling, and when taken to market will not command half the price of specimens raised from thrifty, vigorous trees. We have then added to the loss of time, the loss of quality, size and quantity.—These are very serious losses, and they must be

obvious to every discerning and reflecting person.

But it was not our intention to allude to these matters when we commenced this article. We wish to call the attention of our readers to the importance of securing deep feeding roots which will not be affected by every change of the atmosphere, as surface-feeding roots are. The roots will find their way down into the earth, if it is only properly stirred and prepared. They will then be in an equable temperature—they will not be influenced by drouth or heat or cold. The fruit consequently will not suffer by atmospheric changes, as it is known to do where only surface roots are encouraged. By deep preparation of the soil the water that falls has an opportunity to pass off—and yet, by capillary attraction, sufficient moisture is retained in the soil thus deeply worked for all the uses of the tree; but when it is stirred but a short distance, the moisture is evaporated, and the tree and fruit suffer extremely in a drouth. The fruit produced upon deeply-rooted trees is almost invariably fine, and for the reasons we have specified.

But how shall the soil be thus prepared without too great expense? asks the reader. This is quite an easy matter. Go to your field and mark off where you intend to plant your rows of trees. Have the rows run up with the ascent, if possible, if there is any. Now, with the plow, commence a back furrow half way between the intended rows, leaving the water or open furrows where you intend the row of trees shall stand. After you have made the back furrow, go right over the work again, ridging to the centre still higher, and so continue until the water furrow is at least two and a half or three feet deep. After that, let the plow into the water furrow as deeply as possible, and then commence turning the soil back into this opening—for here the trees are to stand. Throw back the soil until you get it about on its former level, when you can plant your trees and enjoy the satisfaction of seeing them thrive exceedingly. It is unnecessary to plant the trees any deeper than they stood in the nursery. The roots will be sure to find their way down as far as it has been stirred, and when they get there they will be out of the reach of the vicissitudes of the atmosphere. By making the original furrow run up the hill, the water will find its way down the hill through the ground where it has been so deeply broken.

But we also wish to urge the importance of working as deeply between the rows as where

the rows stand, by throwing the earth to the trees and then back again. This can be done any time within a year or two, if not convenient when the trees are set. This is a much cheaper plan than trenching with the spade, and the soil is much more finely pulverized, and to a much greater depth, than by using the sub-soil plow. We know that a much smaller number of trees will be planted where this plan is adopted; but we believe there will be a much greater return of fruit.

Injury of the Freeze of Jan. 1, 1864.

ED. VALLEY FARMER: I had hoped to see in your February number a fuller account of the effects of the recent January freeze than you were able to give. Perhaps your next paper will contain more accurate and extensive reports from your many correspondents.

In my brief note, printed in your last number, I stated that the fruit buds of the peach were all dead, and expressed the opinion that the tender branches of the trees were also killed. The recent warm weather has developed to some extent whatever injury the trees have received, and I am now able to speak with greater confidence of the damage sustained. Still, I cannot speak with absolute certainty, because I know that the bark and wood of the peach may be considerably discolored by cold and the tree yet live.

I have made a pretty thorough examination of my orchard, and have come to the conclusion that the only injury to a great majority of the trees consists in a discoloration of the wood and bark of the twigs of the latest growth. The larger limbs and the trunks are entirely sound. In some trees, the discoloration extends to the limbs of last year's growth, in some very slight, in others quite distinct. Then there are a few trees which seem to have been chiefly affected in the stems, just above the insertion of the bud, where the inner bark, or rather the sap, between the bark and wood, is absolutely black. In some cases, this appearance is only on one side, generally the North; in others extending entirely around the trunk. These trees will undoubtedly die, though they may grow till midsummer. These various effects cannot be explained by any difference of exposure, age or variety. I found one of the worst cases in a row of about twenty thrifty trees, three years planted—all the others being perfectly sound.

I am afraid I shall lose a few of my pear trees, but generally they seem to be entirely uninjured.

I have no information from the great orchards at Cobden and Makanda, 32 and 40 miles north of this, except what I find in the letters of "Rural," written from Cobden for the *Chicago Tribune*. He says that, at Cobden, the mercury fell to 22° below zero on the hills, and to 18° below in the valleys. The cold was therefore from 4° to 8° more intense than it was here, 14° being the lowest point on the hills here. In his letter of the 18th January, "Rural" says: "That the trees are seriously injured, all admit; but it is difficult to judge of the real damage to a peach tree by the discoloration of the bark. All are more or less injured, and many of the large trees that we have examined are dead to a certainty. We should not be surprised to find most of them killed outright, while at best they will be two or three years in recovering, and will, in no event make good orchards." In a letter written two days later, he says: "On further examination, we find the older peach-trees the most injured, the young orchards, in some cases, being but little affected." He reports the pear trees, both grafted and seedling, as damaged and the fruit killed.

I hope that later examinations in that region may give reason for more favorable reports. I presume some one then will furnish you with authentic information derived from observations made since the warm weather. A. M. BROWN.

Villa Ridge, Ill. Feb., 1864.

APPLE TREES IN DEKALB CO. MO.—Joseph Smith, writing us from this county, says he has "about 500 apple trees, which were set in the spring of 1859, and which did well until Oct. 24th, 1862, when certain varieties were very much injured by the sudden change of temperature from very warm to severely cold.—Summer Queen badly killed; Newtown Pippin, Swaar, and Esopus Spitzenberg, very much injured. Heart Cherries, such as Gov. Wood, Sparhawk's Honey, &c., will not bear the sudden changes of this climate.—My situation is high, but exposed. Have endeavored to secure protection by planting eight or ten acres of Black Locust on the North-West. The borers have blasted my hopes of protection from that source. Trees three or four inches in diameter so completely perforated that the wind blows them down by the hundred. Will try the White Willow. Do you think it will pay?"

[REPLY.—We have not experience enough with the White Willow to recommend it. We hope that it may prove to be all that its ardent friends claim for it. In two or three years we shall know more about it. You can safely plant for protection some of your rapid growing kinds of forest trees, as Silver Leaf or Soft Maples, Elms, Poplars, &c. They will grow rapidly and make a fine protection.]

[Written for the Valley Farmer.]

A Description of Some of Our Grape Vines.

BY LOUIS L. KOCH, GOLFONDA, ILL.

Regarding the recent appearance of the many recognized sorts, the number of which will very probably be increased with each year—anything to hold good as to all the different kinds, can hardly be said about them. I shall speak at this time exclusively for the benefit of beginners, about such sorts as have been tried, and the qualities of which are known; again reminding the reader that these communications are based altogether upon my own experience.

A division into families of the different sorts (such as has been introduced into Germany) according to their differences from each other, is also hardly possible on account of the newness of the subject; nevertheless, we shall strive to attain this object as we are able. I shall not arrange them in alphabetical order, but according to their characteristic pedigree and obvious differences; all of which has been done hitherto but in rude sketches, yet may hereafter appear perhaps as the starting point of a more regular system.

I begin with the old

FOX GRAPE,

As one, which, by its apparent advantages, is certainly among the first taken from the forests of this continent for culture, and which can adduce such respectable representatives among its descendants. Its home, so far as I know, is the mountains of the Northern and Eastern States down to Pennsylvania, and with its large, fine berries (although of a medium taste) may have afforded to the early settlers and hunters a welcome fruit. Bunches small, rather round than long, with some 8 or 10 berries, more frequently less. Berries round, very large, larger than the Black Hamburg, of fine appearance, dark blue, light blue bloom, of very thick skin, flesh pulpy, its taste like the stringent Fox taste, but of little sweetness. Growth very luxuriant. Leaves and vine are full of hairy furze. The former, yellowish on the under side, the upper side a brilliant green; very large, almost round, and slightly serrated.

This grape seems to prefer a treatment more adapted to its wild condition; bears largely, and generally upon each of its fruit rods some 3 or 4 bunches with their large berries are found. The berry commences to color in the beginning of July; and by the end of this month, or the beginning of the next, it is fully ripe. This early ripeness, and its fine appearance alone secure a market for it (now, indeed, far surpass-

ed by the Hartford Prolific) and can be used at best but for kitchen use.

All the different sorts derived from this Fox grape, directly or indirectly, to some of which much importance has been attached in our collections—in despite of all their preferences, retained qualities altogether characteristic of their progenitor, such as the woolly, frequently hairy covering of the under side of the leaves, and the unripe state of the summer branches, the ends of most of which manifest in spring a beautiful rose color. The large foliage, mostly dark, and seldom deeply serrated, preserves its tint until they drop off in the fall. Although the fruit buds are situated far apart generally, the greater portion of the sorts of this family appear to be very prolific. The berries are generally round, seldom of a thin skin, flesh rather pulpy than juicy; however, the stringent Fox taste is more or less obvious as an unavoidable dower of the progenitor—an unmistakable proof of its descent.

CATAWBA

Grows wild on the Catawba river, in North Carolina. Introduced about the year 1830 by the pioneer of American grape culture, Mr. N. Longworth, of Cincinnati, for the purpose of making wine. It may, therefore, be considered the first (and, I am sorry to say, the sort most extant) which seemed to extend the interests of grape culture, securing for itself a too general recognition—as all previous attempts to promote these same interests by sorts imported from Europe had proven a decided failure.

I visited Mr. Longworth in Cincinnati in the spring of 1834. He was already at that time an enthusiast on the subject, to which, with untiring perseverance, he devoted the greater part of his life's energies.

At that time, the entire grape culture round about Cincinnati was limited to his few acres. Mr. L. showed me a beautiful large Catawba bunch, carefully put up in a glass filled with alcohol for the purpose of preservation, and told me with great certainty, that the Catawba would establish grape culture in America. How well founded his observation was, the present demonstrates.

While we acknowledge the indisputable merit of Mr. Longworth, in having secured a general, a deeper interest in the culture of the grape; it was on the other hand so much more to be lamented that the deficiencies of this promising grape were rendered more apparent with its more extensive cultivation; and that too in such a manner, that many a zealous

wine grower became wearied and abandoned his vineyard—a sacrifice of time and money; while it withheld others favorable to the culture, from turning their attention to a project, the results of which were so uncertain.

Notwithstanding, the Catawba has been, and is still, the leading wine, and domineers with equal recognition even now in our vineyards, as well as in the yet insignificant commerce of American wines. This humorsome grape, so well satisfied with itself, will award to its grower all its unmistakable advantages every year, and that undiminished (as in Nauvoo); as well as in other places in some years abundantly compensates for past years of failure by the almost incredible yield it proffers, and thus urge on to still greater perseverance in its cultivation, reserving for itself a great role for time to come in our grape culture. On the other hand, so many recently discovered sorts (far more valuable, too,) will meet with more difficulty to obtain a just recognition, as men are discouraged, partly through the high prices of plants, and partly through the prejudices of the public patronizing the drinking of wine as a beverage.

A special description of the Catawba, I deem superfluous. In the full development and application of all its qualities, it will ever deserve and occupy a high rank in our assortment of wines.

Bunch medium size, shouldered and not shouldered; long; somewhat loose. Berries of a bluish-red, assumes a blue color when fully matured, with handsome light-blue bloom; flavor aromatic and sweet—but even at the point of highest maturity, it retains that stringent taste peculiar to the Fox grape, of which family it is a member, which flavor too is communicated to the wine. Growth, in the proper soil and with suitable treatment, very luxuriant.—The vine of a light brown, although its ends are not yet matured, as well as its large, splendid foliage on the under side of its leaves, slightly covered with a hairy furze, attains, when the vine is proportionately strong a length of more than 20 feet. The fruit buds form at a medium distance. This grape is extraordinarily productive, and the branches may, if not cut back severely, produce too largely, and thus occasion disease, if not death. Time of maturity according to different latitudes, frequently very different in very short distances. In the year of 1860, I was obliged, by the perfect ripeness of the grapes, to cut in the last days of August; which, however, even in summers warmer than that of '60, I can rarely defer be-

yond the middle of September—whilst in other vineyards, but one or two degrees north of mine, the harvest must be delayed till the beginning of October.

In order to obtain a good wine from the Catawba—a wine which exhibits all its qualities, it must not (just like any and every wine grape) be cut before its perfect ripeness. But in my vineyard, and those of my vicinity, this can only be accomplished by a great reduction of its yield, as but a few days previous to the time stated, the so-called bitter-rot makes its appearance. The grapes affected by this rot, fall off—and frequently half of the bunch is gone. It is a remarkable fact, that the flavor of the berries do not affect that of the wine. The harvest must be managed with the greatest care, so that the diseased berries, which are made to fall off by the least motion, will not be lost.

Other obstacles in the way of an equal and perfect ripening of the berries are, when the branches sustain too many grapes, so that they are inevitably situated too near and over each other. Several experiments in the way of comparison have sufficiently convinced me, that in such instances their maturity is generally delayed for weeks, or never comes to perfection; wherefore, I cannot too strongly recommend espaliers, by which means the bearing branches may spread according to their wants—as well as the cutting back of the short branches. If with unfailing certainty we could prevent all the evils to which the Catawba grape is subject, as we can those just described, its culture could not be recommended too highly. But there are so many, that, in many parts of the country, it should have been abandoned.

The blossoms of this grape are more hardy than any other I know. Rains, which have continued for days, cannot, during this period, disturb a full start of the young berries. They continue to prosper, if not sooner affected by mildew, until the end of June (indeed to the middle of July) without interruption. From this time on, and rarely sooner, all the diseases appear in varied ways and forms—which affect other grapes in but one place perhaps—while, in the case of the Catawba, they seem to concentrate both in the foliage and fruit, and frequently destroy, either partially or wholly, the brightest expectations in a few days, or not unfrequently continue their ravages at periodical intervals within a few days of harvest. The grower is then indeed sadly disappointed, when instead of reaping a rich harvest, he finds but single berries upon the stems. At times, too,

the foliage, previously in lavish exuberance, is destroyed either by mildew or some other atmospheric influence; and the vineyard, which in the beginning of summer presented a picture of abundance and luxuriance, now exhibits a sad spectacle indeed.

Within the ten years that I have cultivated the Catawba, my experience differed but little from the foregoing, and if my vineyards had not contained some later and more grateful sorts, I doubt whether I could have kept alive the great interest I take in grape culture. On the contrary, I have seen vineyards of this grape in other parts of the country, which, by their almost incredible abundance in the way of grapes, surpassed everything that might have been expected of a good harvest—wherefore, I cannot blame the proprietors of those vineyards for their preference for the Catawba. Generally speaking, it seems that the culture of the Catawba meets with more success in climes North than South—which the prosperous vineyards in Nauvoo go to justify.

This grape grows exceedingly easy by slips—and formerly the most of our vineyards were laid out in this way. I prefer, however, to have these slips to take root in the nursery, and then transplant them to the plantation, which should be the practice in respect to all other kinds.

[To be Continued.]

FRUIT PROSPECTS IN S'HN OHIO.

At a meeting of the Cincinnati Horticultural Society, held Jan. 30th, the following facts and observations were made regarding the condition of the fruit prospects in that region:

A committee appointed to examine fruit buds and branches, reported, that "they are of opinion that the prominent grape buds are killed, but hope the laterals will produce fruit."

Raspberries appear to be killed. Pear buds are doubtful, but supposed to be killed.

Both the bud and wood of peach are killed.

Mr. Challen said that, in Clermont County, he found that apples and pears were safe where they stood upon the hills, but on the bottom lands they were injured by frost. Peach trees growing in the valleys were killed to the ground—while upon the hills the wood had escaped, but not the buds.

Dr. Taylor, of Ky., said his peaches were killed, though the wood was safe. Pear buds had escaped, while the apple buds were all killed, except the Maiden's Blush, which promises a crop. In reply to a question as to whether the peach trees killed by frost might not be

saved by cutting back; replied that they could, but that the operation, to be successful, should be performed at once, in order that the whole strength of the sap should go to the formation of peach shoots, and should be done unsparingly below the snow line; he also cited an instance of a peach orchard in Ross County, O., which by judicious management had produced three crops of trees from the same roots. At the age of ten or twelve, when the trees had begun to decline, they had been cut back to the ground, and thus new shoots were thrown out, and fruited sooner than young trees could have been. This orchard had borne fruit for 30 years, and he was not prepared to say how long it will continue yet.

This fact may be of much service to many orchardists in the present juncture of peach tree affairs, and might be adopted extensively, as little would be lost and much might be gained. From the above it will be seen that our neighbors on the Ohio are little, if any, better off than we are, as regards fruit prospects for the coming year. If "misery loves company," then we are all well provided for in this respect.

In my opinion, the sweeping assertions as to the extensive killing of trees, will be found to be erroneous. The apple, pear, and hardier cherry trees, will, doubtless, thoroughly recover the injury, by removing the worst injured parts—the youngest growth; though the future crop of fruit will be more or less cut short.

Peach trees will, most of them, break out into leaf, and make a feeble effort to grow, possibly starting below on the older wood; but the seeds of speedy and certain decay are in them, and their lives will be cut short and rendered useless, unless the process above described should help them out, which of course is nothing more nor less than renewing the tree nearly throughout.

C. S., Carondelet.

RHODE ISLAND GREENING.

This variety was placed upon the list of Winter Apples for General Cultivation, by the Mo. State Horticultural Society, at its late meeting, notwithstanding several members strenuously opposed its being placed there on account of its early dropping from the tree and being a poor keeper in this latitude. These objections were sufficient to keep other varieties off the list.

We see by the late Report of the Department of Agriculture, that it sustains the objections urged before the Society against its adoption. The Report says, the Rhode Island Greening in "Southern Ohio, Indiana, and other South-western sections, drops its fruit too early for late keeping."

Care in Planting Trees.

ED. VALLEY FARMER: I got some trees from you two years ago, and I have not lost one, and they out-grew any trees that I ever saw. I set them out in the following way: I dug holes 30 feet apart and three feet square, and two feet deep. I then took thoroughly-rotten stable manure, and put about six inches deep over the bottom of the hole, then two inches of earth and two inches of manure alternately, until the hole was filled to within about four inches of the top—then I took the top soil and filled in until the place where the tree was to stand was about ten inches higher than the natural ground, and set my trees the same depth that they grew in the nursery. My land is thin Post Oak land, and my trees look healthier than any in the country. I tried four trees as follows: Hauled soil from the creek bottom and filled the holes; but they did not do as well as the others. If you have any objection to my plan of planting trees, please say what, and oblige yours,

St. James, Mo.

G. A. SETT.

[REPLY.—We have no objection to your plan if your soil is thin, as you say it is. We think you will be well rewarded for the care taken in planting your trees. Half of the battle in raising orchards is to have the ground well prepared for the trees, and then to take great pains in planting. Unless your soil is very wet, we do not see the propriety of raising a mound ten inches above the surface. But perhaps we have not understood your meaning.]

[Written for the Valley Farmer.]

Horizontal Training of Grape Vines.

A writer in the January number of the *Valley Farmer*, recommends the horizontal training of grape vines, and also asserts that the "downward growing limbs of fruit trees should not be lopped off." The reason assigned for this is, that it increases the crop of fruit. He asserts that experiments of this kind have been made in Europe for several years. He then says:—"It is accounted for thus—that the sap follows the more readily the law of gravitation than when restrained by it."

The facts from which the writer draws his inference, are as old as horticulture itself, and the system has been practiced in vineyards and orchards from time immemorial; but his conclusions are wide of the mark.

One of the most common things practiced by intelligent horticulturists is, when an apple or pear tree continues to make wood rapidly, and produces no fruit (which is often the case with some kinds when growing on very rich land), he hangs weights on the branches, or ties them down with cords; this checks the flow of sap, instead of hastening its circulation, by the force

of gravitation, and causes fruit spurs to be formed, and a habit of fruit bearing is thus established. *Ringing* is also sometimes resorted to, with the same results. Ordinarily, it is well not to encourage the drooping habit of apple trees, but the most experienced orchardists shorten in the branches of the trees when young, in order to strengthen the *arms* and encourage an upright or pyramidal form. When this is well attended to, the wood producing, as well as the fruit producing forces are maintained in equilibrium; and so long as this is done, and the roots properly fed with their natural aliment, the tree will continue in health and fruitfulness perpetually. The drooping habit, increased by each annual burden of fruit, destroys the wood producing force, and the tree continues to bear year after year until its vital powers are exhausted, when it finally dies.

Training the vine horizontally has been practiced for hundreds of years. The natural habit of the vine is to reach the highest point possible, as long as it can find support. The object of the vine dresser is to restrict the growth of the vine within convenient limits, and keep it under his control, without impairing its fruitfulness. Hence, the various methods of training have been adopted. A grape vine generally cannot be expected to mature its fruit perfectly from a cane much more than four feet in length. That is, a vine-dresser, for instance, when training his vines to stakes, cuts the cane for the next season's bearing, to three and a half or four feet long. This cane will have, say, five good buds upon it, each of which will produce a bearing shoot; the topmost buds will break the strongest, and unless checked by some means will continue in the ascendancy throughout the season, and if permitted to grow in an upright direction, it will grow the faster, its sap ascending with increased vigor, notwithstanding the "law of gravitation." The shoots and bunches of fruit springing from the eyes below are deprived of their due share of support in consequence of the natural tendency of the upper shoots in gaining the ascendancy. Now, if the cane had been cut six or more feet long, the current of support will be so strongly diverted to the upper fruit bearing shoots, that the lower ones not receiving their share of sustenance will fail to ripen their crop. It is from this tendency of the vine to shoot the strongest from its uppermost buds, that some vine-dressers adopt the bow system of training, which is practiced to a considerable extent about Cincinnati. The cane, when cut to four feet in length,

being bent and tied in a bow, the flow of sap toward the end buds is checked, and a more uniform growth of all the buds is secured. When the arm system of training is adopted, other methods of overcoming this evil are resorted to. Say, each arm is trained four feet long from the main stem, and each arm will send up five bearing shoots. Notwithstanding the arm is secured in a horizontal position, the shoots nearest the end will outgrow and rob those nearest the main trunk of an equal share of sap. To equalize this growth, the intelligent vine-dresser will stop the outer or strongest growing shoots some days before he does those nearest the stem, and thus, in some measure, cause them to mature their fruit more uniformly.

I have before me the foreign works on the vine. We have the highest authority among the French writers, and some of their works are of ancient date. The point referred to has long been a study among the best grape growers of Europe. In a well illustrated work by a French author, a plan is given, which is extensively practiced in France and other portions of Europe, to equalize the growth of the shoots from the same arm. The arm, instead of being placed horizontal, is depressed, say four inches in a length of four feet. That is, the end of the arm is secured down four inches lower than it is near the main stem. This depression secures the same advantages as when the early pinching back is resorted to as described above. The facts here stated are well known to professional horticulturists and to vegetable physiologists. But vine growing in our country is in its infancy, and it is to be regretted that we have not a single work in the English language yet complete, calculated to meet the wants of American vine-dressers.

H. P. B.

[Written for the Valley Farmer.]
The Frost of January 1, 1864.
 BY LOUIS L. KOCH, GOLCONDA, ILL.

The severe cold of the first half of January, visited our part of the country also with rigor, although we live in the latitude of $37\frac{1}{2}^{\circ}$ north—a latitude which in the old country is known to produce palms.

On Dec. 30th the thermometer stood at 51° Fahrenheit. The sun seemed so warm that, while engaged at some light garden work, my coat even proved burdensome. It was a delightful fall day, and made us forget that we were in the winter season. On the next day, the 31st, the mercury rose at first not above freezing point (32°); a fine rain commencing early changed toward evening into sleet, and before night-fall

into a snow storm, which with increasing violence raged through the whole night. The New Year's sun was seen to shine upon a winter landscape, representing the high and frosty North. The thermometer at 7 in the morning stood 18° below zero— 22° Reaumur; at noon 5° below zero, and the next morning below zero. And varying between 3 and 12° below zero, and occasional heavy snows, this Siberian winter continued with but little moderation to the middle of the month.

It is self evident, that the reaction ensuing upon such an abnormal degree of cold must prove highly sensitive to fruit culture, and years only will suffice entirely to adjust the ruin brought upon it thereby. At present, the immediate effects of it can be but approximately determined. Of all my vineries, inclining toward the south-east, the wood of the uncovered Herbmont alone suffered, and many of them may be frozen to the ground. Just so with my seedlings from the "Scuppernon." Of all the other sorts, the wood of last year is fresh and green to the extreme points of the branches.—The fruit buds, however, have been affected more or less, and the result of such loss cannot at this time be determined. A close examination by means of the microscope, persuades me to believe that the reserve buds are still green, and consequently unhurt, so that we may expect some compensation from that quarter.

In my immediate vicinity, all the vineries, consisting mostly of Catawba, and inclining to the North, are frozen down to the very ground; whilst those immediately near them but inclining to the South, have been as little touched as mine. I cannot refrain from enjoining these facts as proofs of what I have stated in my communications on Grape Culture, in regard to locating a vineyard to have the points of the compass in view, while it again induces me to express my unqualified disapprobation of laying out a vinery to incline to the North. Where such a vinery may have been spared by the winter frosts, the late frosts in spring generally, when the buds have already considerably sprouted, endanger it still more, and not unfrequently the entire crop is irrecoverably ruined by it.

That, according to the reasoning of those who vindicate this inclination to the North, grapes are known to ripen under the sun's high altitude in our latitudes, is an admitted fact; but frequently our frosts, both of the winter and spring, leave no fruit on the vine to enjoy this warmth.

Peaches, too, a fruit we are accustomed to

harvest from year to year, with but rare interruption, in its highest perfection and superabundance, almost affording a staple commodity for our country here, have also participated in this sad visitation, although not as largely as it is at present apprehended. True, the wood of last year appears spotted and injured, and rather brownish beneath the outer bark, the rising sap, however, will cure much of this, and I do not deem the young wood, even, entirely irrecoverable, much less the trees.

Of the fruit buds, the greater part are destroyed, and we need not expect them to be restored whenever we observe that the centre of them is dark—the stamina frozen.

On the other hand, I find among such trees as were raised from seedlings, many entirely uninjured. It is evident that the finer sorts have been more seriously affected, but I regard them also as beyond all danger.

Pears, according to the different sorts, have suffered more or less in their wood of last year and the fruit buds. I find that in my small collection, the Lawrence, Beurre Diel, B. d'Anjou, B. Blanc, B. Gris, B. Napoleon, Van Mons Leon de Clerc and Bloodgood, the For-elle, too, excepting some few blossom buds, have been left unharmed by the frost. Others, however, such as the Duchesse d'Angouleme, and Waterloo—especially the latter—suffered severely. The under bark of the wood of last year appears here, too, rather brown, as with the peaches, but which according to my experience had in Germany does not seal its ruin. I have there frequently observed the same after a severe winter, yet no harm was perceptible in the summer, only that such frozen wood could not be used for grafts, as they would never attach.

All the different sorts of plums are in a healthy condition, but as to wood and fruit buds—which for us seems altogether immaterial, as by the curculio they, as well as apricots and nectarines, scarcely ever are permitted to ripen to perfection.

For amateurs of flowers, I cannot omit to state that, a *Magnolia grandiflora*, 12 feet high, standing in a southern situation near my dwelling-house, has hardly been touched, even, by this fierce winter. It is adorned with its splendid dark green brilliant foliage as beautiful as last summer. Also *Magnolia purpurea*, *Macrophylla*, and *Acuminata*, have been spared, while our handsomest ornamental shrub, the *Lagerstroemia indica* (Grape Myrtle, so rarely affected by the winter, and which in all perfec-

tion develops its full splendor in this country), the Deodara and Lebanon Cedar, and other trees and shrubs natives of the South, have suffered very seriously.

GRAFTING FRUIT TREES.

A writer in the *Boston Cultivator* says:

"The time for grafting is as soon as the sap starts freely in the stock to be grafted. The scions should be cut before the sap begins to start, usually in March or earlier, and be put in a cellar where they will be kept cool and moist.

It is an easy matter to graft; any one who has the slightest ingenuity can do it. The stock should not be split too far down, but just far enough to have it pinch the scion lightly. The split being started with a knife and hammer, is finished with a hard wooden wedge, sharpened somewhat bluntly.

The scions should be watched, and kept in their places while the wedge is drawn. In some trees the inside bark is thick, and the scion with only two or three buds should be put in next to the wood, for there is where the sap comes up. No regard should be paid to the outer bark. If the scion is set a little slanting, so that the two inside linings will be sure to cross somewhere, it will probably live. Grafting wax should be made of the right consistency. That which I use, and is much liked, is made as follows: 4 parts rosin, 2 parts beeswax, and 1 1-2 part tallow.

While grafting, this cement can be kept in a dish of warm water to keep it moist. The limbs which have had their ends taken off should not be pruned until the graft has attained considerable size, as they draw the sap up the limb. They can eventually be trimmed so as to throw all the sap into the grafts."

Fruit Trees in Crawford Co., Mo.

ED. VALLEY FARMER: I have been examining my fruit trees, now, after a long warm spell, which would probably make them look as bad as they will get to be, or approach to it. I find no apple trees or blossom buds injured, unless the Keswick Codlin (the buds of which are swelled the most of any with me) are hurt—though I think they are not; the outside is dried a little, but the germ seems good.

My peach trees, two and three years setting in the orchard, are black about a foot from the ends of the twigs (this distance may increase a little), otherwise the bark looks bright; but the wood is more or less discolored on all, down to less than a foot of the ground. I am of the opinion, however, that the bodies will eventu-

ally recover. I recollect that in Northern Ills., about 10 or 12 years ago, and again in 1856, peach trees had the same appearance under the bark, and many cut their trees down before the time for the leaves to start. I did not cut mine down, and a good many of them finally recovered.

My apricot and quince trees, Heart and Bigarreau cherries, all my standard pears and part of my dwarfs, are uninjured.

The most thrifty of my Concord, Isabella and Catawba grapes are pretty dark in the wood, but the others (less thrifty) seem uninjured. My plums are all safe too. But Lawton Blackberries are dead down to about a foot of the ground, or near the snow line.

My grounds have a slight northern aspect, they are elevated about 150 or 200 feet above the waters of the Merrimac, and are said to be 700 feet above the river at St. Louis. The thermometer stood at 23° below zero Jan. 1, 7 A.M. The thermometer was manufactured by Geo. Taylor, Rochester, N.Y.

Yours truly, B. SMITH.
Cuba, Mo., Feb. 6, 1864.

HARDY MAGNOLIAS.

The following communication on Magnolias, was read at the meeting of the Horticultural Society in Cincinnati, by Daniel B. Pierson:

Among the many beautiful flowering trees and shrubs grown in the suburbs of Cincinnati, and suited to the climate, the species which has equal claims upon the planter with any other, is most neglected: viz., the Magnolia.—Unfortunately, an impression has prevailed that most, if not all the Magnolias, are tender, and unsuited to our climate, and but few, if any, good collections of the hardy varieties, exist among our amateurs. The larger growing varieties are among the most stately and magnificent of the trees suited to this latitude; and the size of their foliage and the beauty and fragrance of their flowers, would make them objects of great interest, if more generally known. The small-growing, or shrub varieties, are always favorites, and should be found in every collection. The large growing varieties are—*M. Acuminata*, *M. Auriculata*, *M. Tripetala*, and *M. Cordata*. The shrub varieties are as follows:

M. Conspicua.—Flowers are pure white, and expand early in the spring, before any of the leaves. It blooms when only two to three feet high, and reaches the height of ten feet in a few days under proper treatment.

M. Solaniana.—Blossoms about a week later

than the *Conspicua*, and the flowers are tinged with a rosy purple.

M. Purpurea.—A smaller growing species, with dark green leaves, and the flowers large, rich purple on the outside of the petals, and nearly white within.

These three last named varieties should have light, rich earth to grow in, and a dry, or under-drained sub-soil.

M. Glauca, is almost an evergreen, and bears a pure white flower, one of the most fragrant grown in this climate. A damp loam suits it best, and it is not quite as successfully grown as the other three varieties. Its exceeding fragrance and evergreen character are, however, sufficient inducement to plant it. The fall is the best season for planting the early blooming varieties, as the buds put forth before the frost has left the ground in spring.

[Written for the Valley Farmer.]

Monthly Hints for Garden and Orchard.

BY CAREW SANDERS.

We will now suppose that all preliminary preparations are made, and everything ready to take advantage of the first fine, dry weather in March, to commence the final manipulation of the ground for seeding—such as digging, forking over or plowing, harrowing or raking the soil, so as to obtain a fine tilth for the seed.

From my own experience, I strongly recommend that all seeds and plants should be got into the ground or set out EARLY. More failures and losses occur by late planting and seeding than the opposite. There is nothing like a good early start in the spring—all plants and seeds should be in their proper places ready to commence their growth, when the proper season for each arrives.

This broad principle of early seeding and planting needs some qualification and much discrimination.—For instance, NO kinds of seed should be got into the ground when it is too wet and sticky, or too cloddy, if it can possibly be avoided. Better wait a week to have the soil in good order, so that it will crumble when knocked or raked, and, falling to pieces, become fine and smooth.

Again, seeds of tropical or half tropical plants, must not be sown now, or they will perish; yet these should be sown early too—that is, relatively so; while seeds of those kinds of plants that originated in temperate climes, will germinate at a temperature and resist a frost that would destroy outright many others.

The seeds of the hardiest kinds should, of course, be sown first—but even the main crops of these should not be sown at the very start. Small sowings of many kinds may be ventured quite early for first use. If they hit—all right—you get your reward. If they fail, there is not much lost, and you have time to sow again—it is always worth the risk.

But the main crops should be sown at just the right time, when the soil is getting warm and moist—seeds then germinate quickly, and the plants go booming off at a rapid rate of growth, and can keep pace with the weeds around them.

Let us cite another example or two: The strawberry and many other herbaceous, perennial and sub-alpine plants, commence to grow—to push out new roots and make new leaves early in the season, and at a low temperature. Now I believe the best time to plant all such, is just before they begin to do this, so that the young rootlets may take hold and establish

themselves in their new quarters at once, having no after checks by removal to go through. The same applies also, I believe, to hardy trees. True, the former class of plants will bear considerable rough treatment, will live and grow if removed almost any time during spring and after this growth has commenced; but the tree cannot stand it as well, and hence suffers from this late removal and often dies.

Every one must have observed that the seeds of certain weeds germinate much earlier and at a lower temperature than others. A few days of warm spring weather will bring up hosts of weeds; yet the common purslane is never seen to grow until the weather becomes settled and warm, and the soil well warmed up; while the common grasses are excited into growth by a day or two of mild weather, even in mid-winter.

When qualified by considerations similar to the above, I again repeat—Plant early, Sow early. Now if there is at hand a warm, sheltered border, it might be dug deep and well-manured and made rich and light, and elevated a little so as to drain the surface readily, and a number of small beds of early salads and vegetables sown thereon, such as—Radish, Lettuce, Cress, Early Horn Carrot, earliest Turnip Beet; also beds of Cabbage, Kohl Rabi, Broccoli and other seed, to be afterwards transplanted into the garden. Small beds these may be 6 x 6 or 8 feet; some less, according to kinds, wants, &c. All these may be cleared off to be cropped again during the season.

Next, is to have a constant supply. Take Radish for instance—instead of buying the seed by packets, buy it by the ounce, say 4, 6 or 8 ounces, of two or three sorts. Sow a small bed as above of Early Long Scarlet, or Red and White Turnip, and by the time they get out into rough leaf, dig and sow another bed, and another sowing after that, including a bed of Yellow Turnip for summer. This will give a succession as long as you want them—that is, till other salads, cucumbers, tomatoes, &c. come and take their place. A couple of sowings of lettuce with transplantings will answer the same purpose with them.

Peas may be sown very early, and a succession kept up till sweet corn comes. They are a delicious vegetable. I will give my experience of last year. I obtained two quarts of Landreth's Extra Early, and divided them into three equal parts, and sowed one long double row each time, so as to have them come in succession, by sowing at different times; and my family of five was abundantly supplied with green peas for a long season—in fact, as long as we wanted them. Four to 6 quarts, and two kinds, well managed, will supply a large family with abundance.

If no hot bed is used, a hundred of Cabbage and a dozen or two of Tomato plants might be purchased when needed, and all the rest raised at home, including a few Sweet Potato sets in a square box placed over a little bottom heat and covered with boards.—Then if a few rows of Irish Potatoes of some early sort was planted in a warm, sheltered dry spot to come in quite early; a bed of onions sown for the young, tender green onions (for those who like them)—we shall have quite a variety and good supply to begin the season with. Meantime other varieties and other crops must not be neglected, but must follow one after the other as the season advances, so as to form a proper and complete succession. Yet, for our latitude, April is the greatest seeding month, in the garden, of the whole year, depending however on the backwardness or forwardness of the season.

PEACHES IN COOPER COUNTY.—Friend Colman: Peach trees, both in orchard and nursery, are all killed by the cold weather here down to the snow line; other trees are safe, so far as examined. Hardy grapes are not injured.

THOS. C. GAY.

Piagah, Mo. Jan. 29, 1864.

Celery originated in Germany.

[Reported for the Valley Farmer.]

The Mo. State Horticultural Society. SECOND DAY.

The introductory prayer was offered by Rev. Gusha Anderson.

An excellent essay on Live Fences and Hedges was read by Dr. B. F. Long of Alton, Ill.

Claggett plashes the Osage Orange hedge when 6 feet high, cutting down and bending the branches all over in one direction, making thus at last an impassable barrier. Saw fine hedges of White Thorn in Va.

Kelly never saw a plashed Osage hedge succeed. It dies if not cut off. The White Thorn mildews at Cincinnati in the third year.

Long—The Thorn grows too slowly. It makes a handsome fence in 8 or 10 years.

Colman considered his hedge a fair specimen; trims with a corn knife and while the shoots are green.

Scheetz, had found Black Thorn admirable in Pa. Quinette—With him Osage hedge had been overflown without injury; would not prune till three years, and then to the ground.

PEARS.

An interesting essay on the Pear and its Culture, was read by Jno. A. Pettingill of Bunker Hill, Ill.

In the selection of pears to recommend for culture, Colman moved to observe the rule adopted in selecting apples. Agreed.

Claggett suggested that, in proposing pears for the list, the order of their ripening should be followed.

As Best Summer Pears for Market use—Madeleine, Bartlett, Rostiezer, Tyson, Bloodgood, Dearborn's Seedling, Beurre Giffard, Osband's Summer, Beurre d'Anjou, Doyenne d'Ete, Beurre Boussock, English Jargonelle, Howell, and Louise Bonne de Jersey, were proposed.

Claggett found Madeleine bear early and abundantly, and looked fair, but decayed rapidly within. Tice's experience same. Husmann—the Madeleine and Doyenne d'Ete ripened at same period, and the latter was decidedly the best. Colman commended Madeleine, yet feared it too liable to blight, for market. Not adopted.

Claggett found Doyenne d'Ete early and abundant; too small for market. Tice had long cultivated it; pronounced it early, abundant, delicious, and most saleable. Adopted.

Beurre Giffard, with Babcock, was a fine pear, but bore sparsely. Long remembered a splendid specimen of it at the Ill. Hort. Society's meeting, and his experience was that the tree was healthy, productive, fruit fine and valuable for market. Adopted.

Rostiezer, Colman commended for market value.

Starr said he had seen all the pear trees of an orchard—many varieties—killed by blight except the Rostiezer and Tyson. Sanders thought it appearance rusty, and held it unmarketable. Adopted.

Claggett said Tyson was best as to size and quality—preceding Bartlett. With Tice ripened about 25th July, and Bartlett in August. Adopted.

English Jargonelle, Husmann had proved excellent for market. Hull said it ripened two weeks before the Bartlett. Adopted.

Claggett said the Bartlett is variable as to time of ripening; hangs long; could be marketed by Sept. 1. With Huggins did not succeed well as dwarf, but did as standard. With Babcock it did well as dwarf. Colman found it did well as either; the difference was slight, while the tree was one of the best. Babcock had found the market demand for the trees excessive. Beale found the dwarf fruit much superior. Spalding thought that in general the culture of the pear on the quince stock would not in the long run be profitable. Hull seemed to concur. Colman suggested that Hull's bluff soil should not be considered a universal criterion. Colman found the fruit thrive on the quince or standard in good soil about alike. Edwards said the Am. Pomological Society had recommended the Bartlett as standard alone. Huggins said that though he was on the prairie his experience was like that of

Hull. Smith thought these discrepancies of experience ought to be harmonized—Colman's success might be attributed to deep planting.

Spalding moved to add after the word Bartlett—"on standard."

Quinette had 400 planted on the American Bottom as dwarf, and they did excellently; but in high ground he would plant on standard. Husmann's experience with the dwarf unfavorable.

Motion lost. Bartlett adopted.

Doyenne Boussock strongly commended by Hull; thought it superior to Bartlett. Colman said the latter had the advantage that it could be picked early and left to ripen afterwards. Tice objected to Doyenne Boussock, that it is not a summer but a September or October pear—never in season till Sept. 20. Not adopted.

The list was announced as completed.

Edwards moved that the list of best summer pears for market be adopted as that for family use, adding the Rostiezer, Madeleine and Dearborn Seedling varieties. Carried.

COMMITTEES.

The President announced the following Committees:

On Fruits: C. W. Spalding, St. Louis; Wm. Hadley, Collinsville, Ill.; B. Smith, Cuba; B. F. Long, Alton; and Mr. Kelly.

On Wines: Geo. Husmann, Hermann; Jas. E. Starr, Alton, Ill.; N. J. Colman, St. Louis; J. G. Souard, Dr. H. Claggett, and Dr. Burchard, St. Louis.

On Wines from Fruits other than Grapes: W. C. Flagg, Moro, Ill.; J. B. H. Beale, Eureka, Mo.; Jno. A. Pettingill, Bunker Hill, Ill.; Dr. Edwards, St. Louis; and W. S. Jewett.

On motion of Claggett, the Committee on Peaches were requested to report a list of varieties for cultivation in their order of ripening.

Dr. E. S. Hull was added to the Committee on Fruits.

METHEOLOGICAL.

Flagg moved that a Committee be appointed to prepare and issue interrogatory circulars with a view of learning the exact condition of the weather on the 1st and 2d days of January, 1864, and the effect of the cold on trees, plants, &c., to report the results of the inquiry at the next annual meeting of the Society. Adopted.

AFTERNOON SESSION.

PEARS—Continued.

The business of selecting a list of Best Autumn Pears to recommend for market purposes, was entered upon.

The varieties proposed were—Seckel, Flemish Beauty, Fondante d'Automne, Belle Lucrative, Howell, Beurre d'Anjou, Duchesse d'Angouleme, Buffum, Onondaga, Beurre Bosc, Doyenne Boussock, Washington, White Doyenne.

Howell warmly commended by Hull, for flavor and yield. Colman thought it one of the very best, though the fruit bore at the end of the branches. Adopted.

Beurre d'Anjou as one of the most productive. Adopted.

Flemish Beauty received lavish encomiums from Spalding. Claggett had heard it was late in coming into bearing. Booth had found it one of the best, very profitable, though much subject to blight. Adopted.

INFLUENCE OF WOMAN.

It was announced that the order of business was the reading of an Address by Mr. Richard S. Elliott, of St. Louis, on "The Influence of Woman on Horticultural Pursuits." Mr. Elliott then read an elaborate address. The reading, though rapid, was distinct and impressive. The subject was treated in a lively and vigorous style, and its merits strikingly presented.

OFFICERS ELECTED.

For President, Mr. H. T. Mudd was unanimously

re-elected. Colman having made and Spalding seconded the nomination in highly complimentary speeches.

Vice-Presidents—Dr. B. F. Edwards, St. Louis; F. A. Quinette, St. Louis; B. Smith, Cuba; Jonathan Huggins, Woodburn, Ill.; and Dr. E. S. Hull, Alton, Illinois.

Corresponding Secretary, Dr. L. D. Morse, Alton, Mo.

Recording Secretary, Wm. Muir, of Laborville, Fox Creek P.O. St. Louis Co, Mo.

Treasurer, J. H. Tice, St. Louis.

PEAR LIST RESUMED.

It remained to select Best Autumn Pears for Family Use.

Edwards moved that the list adopted for market, be adopted for family use. Carried.

As Best Winter Pears for Market Use, the following were selected—Glout Moreau, Winter Nelis, Lawrence, Soldat Laboreur, Vicar of Winkfield and Easter Beurre—the last as standard.

The above were also adopted as the Winter List for family use.

On motion, two best varieties for market were selected from each of the pear lists compiled. The following were selected—Bartlett and Doyenne d'Ete for summer; Louise Bonne de Jersey and Beurre Bosc for fall; Easter Beurre and Winter Nelis for Winter.

EVENING SESSION.

On motion, the subject of pear cultivation was taken up.

Hull said many varieties came to a season of rest in their growth about the first of June; noticed that those trees were exempt from blight. He tried to force all to rest at that time by root pruning in winter. The pruning should be sufficiently severe to cause the terminal buds to form about the first of June. The amount necessary to be done, will, in each instance, depend upon the vigor of the tree.

Dr. H. Claggett of St. Louis, read an address on the subject of Agricultural Colleges.

Prof. John T. Hodgen, M. D., delivered a lecture on Vegetable Physiology.

A communication on the subject of the Protection of Game Birds was read. It was written by David Minier of Mackinaw, Ill. He showed that many of these birds render invaluable service as destroyers of insects, and should therefore be cherished instead of slaughtered by bad boys and sportsmen.

A letter was read from Dr. H. Schroeder, Bloomington, Ill., treating of Grapes and Wine Culture.

[To be Continued.]

Illinois State Horticultural Transactions, 1863. Ready March 10th.

Price in paper, sent by Express 25 cts.; by mail 35c.
" muslin " 50 " " 75c.

Also,

Trans. 1861-2, in paper, by Express 25c.; by mail 35c.
" in muslin " 50 " 75c.

Also,

Trans. 1860, in muslin, by Express 50c.; by mail 75c.

Address, W. C. FLAGG, Corresponding Secretary, 1t Alton, Ills.

BACK VOLUMES.

We have often received letters inquiring as to whether we could supply back volumes of the "Valley Farmer." We can furnish none except for the following years: 1850 and 1856 at 75 cents each, postage paid; and 1856, 1857, and 1858, at \$1.75 each, postage paid, the latter in a more expensive binding than the former, consequently costing more. Each volume is complete in itself and contains a valuable fund of useful knowledge.

Meramec Horticultural Society.

ALLENTON SCHOOL HOUSE, Feb. 4th, 1864.

The sixty-second monthly meeting was held pursuant to adjournment. President Beale being called away, Vice-President Harris in the chair.

Minutes read and approved.

Secretary made a report in regard to the action of the Society in behalf of Agricultural Colleges in the State. Adopted.

A letter from Mr. R. S. Elliott was read and referred to the President.

The Corresponding Secretary presented ten copies of Report of Agricultural Department for 1862, and packet of seeds, which were ordered to be distributed among the members. Also read a private communication from Hon. H. T. Blow, on the subject of Tax on Tobacco, expressing a lively interest in its growth and his determination to oppose the 20 cent. tax, as alike injurious to Agricultural interests and the financial policy of the Government.

One new member admitted.

The Fruit Committee reported: We find a fair supply of good fruit upon the table. Philip L. Tippet, 3 varieties, Jenetons, Wineap and Esopus Spitzenberg; large, finely colored, well grown; all No. 1. Wm. Harris, Ortley, Pryor's Red, Jenetons, Newtown Pippin; fine. T. R. Allen, Newtown Pippin, Jenetons and Willow Twig. G. W. Davis, Winter Red? and a variety unknown: Winter Red from a nursery on Plank road, large, coarse grain, poor flavor; not red, but with faint red markings; showy, valuable for market, but not for family use.

CIDER—G. W. Davis had a sample of a very strong bodied cider; pronounced very good. Wm. Harris, of a light, sweet cider, very pure and well made.

A sample of fine Jenetons, sent by Mrs. McPherson, were also on the table. Wm. Harris, Ch.

The chairman of the Vegetable Committee made a verbal report of very fine parsnips sent by Mrs. McPherson.

TOBACCO

Being in order, T. R. Allen called attention to two articles on its culture published in the January and February numbers of the "Valley Farmer," about the best he had seen on the subject. The sowing of the seed is a small, but important, part of the operation; he found that to be the case last year, as his plants did not come till July and August after his planting was finished, and he had to take all the refuse of the neighborhood; thought his plant bed was injured by not covering with brush.

G. W. Davis had a good bed, had it covered with brush, which caught up the leaves, giving him much trouble removing them, and injuring the plants.

P. L. Tippet thinks the best time to sow seed is the middle to end of February.

L. D. Votaw thinks the seed should be sown at 3 or 4 different times, at intervals of 14 days or so.—Rich, new land, where the brush has been burned is best for the bed.

T. R. Allen—The variety found most profitable by the best growers in Franklin County, who have been growing for years, is the Yellow Pryor. The Orinoco has been tried, but the leaf is too tender; they grow closely upon the stem, and are ruffled, consequently not so easily wormed, but break; quality fine.

Various opinions were expressed as to the distance apart to plant, in view of the quality of the soil, the quality and growth of the plant. $2\frac{1}{2} \times 3$ feet, $3 \times 3\frac{1}{2}$, and $3\frac{1}{2} \times 4$, were severally given, and wider one way than the other was most generally approved, as facilitating the various operations connected with its culture.

Vice-President Harris stated that one of the best growers in Franklin County had called upon him and suggested firing with hickory and finishing off with sawdust.

Secretary was instructed to communicate with Mr. P. M. Brown on subject of Essay.

Executive Committee reported the following question for discussion at the next meeting: "What is the

best article with which to make up the deficiency of the last year's corn crop, for the feeding of farm stock, before the next corn crop becomes available?"

The chairman announced the next meeting to be held in the School House, at Eureka, on the first Thursday of March. Wm. Muir, Sec.

Criticism on the late Meeting of the Missouri State Horticultural Society.

ED. VALLEY FARMER: The present month has been enlivened by the Annual Session of the Missouri State Horticultural Society. With your permission I would like to present a few remarks concerning this meeting, for the consideration of your readers, begging them to keep in mind that the views I may present are taken from the stand-point of an outsider. I am not a member of this Society, and therefore took no part either in its discussions or action. But feeling much interested in the subject of fruit and its successful cultivation, I attended the meetings as regularly as my ordinary occupation would permit.

I love good fruit of all kinds—when I can get no better, I can eat a fair share of that which is but indifferently good. I look forward with hope to the time when I may rank myself among the growers of fruit—perchance among the successful ones. I had anticipated that this Annual Meeting would afford me an opportunity of learning much on the subject of fruit culture which would be of future value to me. Sir, I have been measurably disappointed. I do not wish to find fault with those, who, without hope of reward, have devoted much time to the organization and support of this Society, which I hope to see in the course of a few years exercising a wide-spread and beneficial influence over our great State. It is therefore with no feeling but that of kindness that I venture to make a few remarks, which may be thought censorious.

In the first place, then, I would say that the session was too protracted. Four days is a longer time than is necessary to transact the legitimate business of the Society in the best manner. But few members can spare so long a time from their regular pursuits, and the consequence is, that during the first two days, there is a large attendance which is constantly lessening during the latter two. There is a corresponding fault in the programme of business. Apples and Pears being placed first on the list for discussion, and being with Grapes the fruits in which the most general interest is felt, the best attendance may naturally be expected while they are up for discussion, and we find that it is so. Grapes were placed lower down on the programme, but were called up by a vote and made the special order in advance of their time because some members were desirous of going home and wished to have that fruit disposed of before they left. These three important fruits being disposed of, the interest diminishes—the attendance lessens—the lists of small fruits are made up hastily and sometimes farcically—the discussions lose gravity, deliberation and value—and finally the Society adjourns, exulting that for a day or two there was a large attendance.

Now, I believe the amount of interest felt in these meetings depends almost exclusively on the character of the discussions which occur concerning different kinds of fruit. If a certain kind of fruit is up for discussion, and a member rises to speak, who is known to be a successful grower of that fruit, he will be listened to with the deepest interest. Whatever he may have to say concerning the planting, culture, productive qualities and market value of the fruit, will be heard with respect and interest. No matter whether such a man be a good speaker or not, his words will be treasured up. But another member rises who says he has not raised this kind of fruit himself but he recollects seeing it on a friend's grounds some years since, and if he is not mistaken, that friend told him it was a valuable fruit, and therefore he hopes it will be placed on the list, &c. Do you not think, Mr. Editor, that

there is too much of this latter kind of oratory?

One thing which will give reputation, good or bad, to this Society is the character of the lists of fruits it recommends for general cultivation for market purposes. If those lists are made up deliberately, carefully, and as the results of actual trial, putting in the names of none which are not generally known to the members, and known by them to be successful; then they will have a decided, permanent value; and the fact that they are valuable, will give character and influence to the Society. On this occasion some of the larger and more important fruits were carefully examined, the selections deliberately made, and as far as I am able to judge, the lists recommended are worthy of the attention of all who intend to plant fruit.

Two days having been spent in the discussion of two kinds of fruit, but two days remained to dispose of the eight or ten other kinds of fruit. It was evident that the business must be hurried, and it was hurried. Some of the lists were voted almost without a word of discussion or remark of any kind. In other cases it would first be voted to select a certain number of varieties, then, as one variety after another was rejected, it would be discovered that the requisite number could not be obtained unless some of the rejected ones were placed on the list. Then a reconsideration would be voted, and afterward one of these varieties would be placed on the list by as decided a vote as that by which it had been previously rejected.

Are the members of the Society proud of, or satisfied with, the list of Strawberries which they have recommended for general culture for market purposes? Would any member plant this list himself for market purposes? If there were not a sufficient number of reliable varieties, why not, as in the case of the Blackberry, limit the list to one variety universally known to be hardy, productive and profitable?

I think there is no necessity for such hasty action. I think that the Society at its next Annual Meeting can have more time for discussion on every kind of fruit—can make up its lists with more deliberation and better judgment, and yet limit the session to three days, during which we may depend upon a full attendance till the last moment.

The plan I would propose is, to dispense altogether with the remarkable number of Essays which were read this year, and which certainly occupied more than half of the entire session of four days. Go when you would—morning, afternoon, or evening—there was the inevitable essay, and frequently two of them. The outsider, listening to these productions—well written, nearly all of them—would wonder to himself why they were read to an horticultural society. What connection is there between the cultivation of lumber trees and the objects of an horticultural society? How much can be learned about fruit raising, by hearing an Essay on the Preservation of Game Birds? The Essay on Vegetable Physiology was a beautiful and animated production—but I think the time of the Society could have been more profitably spent than in listening to it, despite of the connection between that subject and plant growing. Then, again, we had a long, well-written, carefully-prepared Essay on the Dietetic Uses of Pure Light Wines, the aim of which seemed to be to persuade everybody to drink wine thrice a day with their regular meals, and at no other times. It was difficult to see the point of connection between this subject and the cultivation of Fruits and Flowers. It may, perhaps, be said that, because grapes can be and are made into wine, horticultural societies should encourage the use of that article.—Such an argument will not bear examination. Our horticultural friends are getting on the wrong track with regard to this subject. Corn and barley are largely used in the manufacture of whisky and malt liquors, yet I have never heard that our agricultural societies have deemed it their peculiar province to offer premiums for the best specimens of whisky and lager beer, and appoint committees to decide on the

relative merits of Bourbon, Monongahela and Old Rye; or that they have been in the habit of inviting eminent brewers to discourse to them on the dietetic benefits of "Zwei Lager." Again, the castor bean is an article in whose production many farmers are interested; but I do not recollect that our agricultural societies have manifested much interest in the manufacture and use of castor oil. Yet if the practice of our horticultural friends is to prevail, we may expect to see some medical agriculturist occupy the time of the Society to which he belongs in explaining the benefits to be derived from the use of this oil, and conclude perhaps by advising his hearers to take it three times a day with their meals, and at "no other time."

Understand me, Mr. Editor, I do not find fault with those essays which bear directly on the culture of fruits and flowers—the more we have of them the better; but as for the other class—those which might be quite as appropriately delivered before the Mercantile Library Association as to a Horticultural Society—let us dispense with them altogether; or, if we must have them, let us devote the fourth day of the session to them, after the legitimate business of the Society is properly disposed of.

Mr. Editor, I do not wish to trespass on the patience of your readers, and fear that my remarks may occupy too much space in your valuable paper; but if my observations are acceptable, I may extend them at another time. With faith in the great horticultural future of our noble State, I subscribe myself
St. Louis, Jan. 21, 1864. LACEDÉ.

Domestic Department.

PUREE OF MEXICAN (BLACK) BEAN.

(BEAN SOUP.)

Take 1 quart of beans, and having put them to soak over-night, drain off the water on the following morning. Put the beans into a small stockpot, with carrots, celery, an onion stuck with three cloves, and a knuckle of raw ham. Add 3 quarts of good stock, and set the whole on the fire, to simmer gently for about 4 hours. Then remove the carrots, celery, onion and ham. Drain off the broth from the beans and pound them in a mortar, after which place them in a stewpan, add the broth, and then pass the puree through the tammy cloth (fine sieve) in the usual manner. It should be then poured in the soup pot, and if too thick, a little stock or broth should be added. Stir it over the stove fire till it boils, and then remove it to the side of the stove to continue gently boiling until it becomes clear of scum, which of course must be carefully removed while boiling. Finish by adding 4 ounces of good butter and a little pounded sugar. Hand round fried bread. Lovers of bean soup will find this one "un bocconcino da prete."

STEWED TONGUE.

Wash it very clean, and rub it with common salt and saltpetre; let it lie two or three days; then boil it until the skin peels off. Put it into a saucepan with part of the liquor it has been boiled in, and 1 pint of good stock. Season it with Black and Jamaica (Red) pepper, and 2 or 3 pounded cloves. Add a glass of White Wine (Sherry), and some lemon juice. Thicken the sauce with butter rolled in flour, and pour it over the tongue.

[We received the above from one of our lady readers with the promise of more if acceptable. We can say they do prove "acceptable"—for ladies naturally look for something fresh in the Domestic Department each month, and will be glad to receive more. We return thanks to our fair contributor. It is a source of regret to us that we do not hear oftener from our lady friends through the columns of our journal. We know many of our lady readers feel a lively interest in some of the departments of our magazine, and they could add by a little effort on their part very much to the interest of its matter.—Ed.]



[Written for the Valley Farmer]

KINDRED TIES.

They are strong around the heart—
Never sunder'd, though we part;
Ties which early life impose,
Life will strengthen as it goes;
And in death they are not riven,
For they draw our hearts to Heaven.

Years of time may come between,
Leagues of land may intervene—
Yet will fancy, pilgrim roam,
Backward to our early home,
And the scenes which now are o'er,
Summon to our sight once more.

Father—Mother—they are there;
Brother brave, and Sister fair:
Still those kindred ties remain—
DEATH AND TIME, YE TOIL IN VAIN!
Ye are strong, and weak are we—
Yet we boast the victory:
KINDRED hearts your power defies,
GOD HAS FORMED their mystic ties.

COUNTRY GIRL

ECONOMY IN A FAMILY.

There is nothing which goes so far towards placing young people beyond the reach of poverty as economy in the management of household affairs. It matters not whether a man furnishes little or much if there is a continual leakage in his kitchen or parlor; it runs away he knows not how, and that demon Waste cries more! like the horse-leech's daughter, until he that provided has no more to give. It is the husband's duty to bring into the house, and it is the duty of the wife to see that none goes wrongfully out of it. A man gets a wife to look after his affairs, and to assist him in his journey through life; to educate and prepare their children for a proper station in life, and not to dissipate his property. The husband's interest should be the wife's care, and her greatest ambition to carry her no farther than his welfare or happiness, together with that of her children. This should be her sole aim, and the theatre of her exploits in the bosom of her family, where she may do as much towards making a fortune as he can in the counting-room or the workshop.

It is not the money earned that makes a man wealthy—it is what he saves from his earnings.

Self gratification in dress, or indulgence in appetite, or more company than his purse can well entertain, are equally pernicious. The first adds vanity to extravagance; the second fastens a doctor's bill to a long butcher's account; and the latter brings intemperance—the worst of all evils—in its train.

What Can be Found in a Dictionary.

B. F. Taylor says, in his lecture on "The Words We Use:" "I turn over its pages much as Sinbad, the sailor, looked about him in the Valley of Diamonds—bewildered to think how rich it is. Within those lids are the hues that Milton gave to Paradise; the living colors that lent reality to Shakespeare's people, as by the miracle of his mind they swelled the census of all time—colors that lapse of years cannot wear away, and the touch of death cannot fade.—There are the words of eloquence that thrilled the world, and wait another's saying; there the wardrobe of the giants of the elder time yet meet for a later wearing. Old loves were breathed, old vows were said, old songs were sung in these same words. Old war cries are on the same pages; syllables for the living and dying; words for the glowing lips of prophetic voice; utterance for all truth. It is to the world of mind—the dictionary—what the simple elements the chemist gathers in his hand sometimes, are to the world of matter; and we shall never be done wondering how myriad forms of strength and beauty are forever evolved from words; how the blind bard of England found therein the dialect of Eden; and Avon's son sinew for Richard and the song for Ophelia.

What flowers of fancy; what truths with hearts of oak; spring from those inky words! what monuments are built of them, what battlements of strength! How firmly they lie anchored, like mountain quarries in the ledges of the argument; how lightly they spread their dewy wings like the morning, in the flying of the song. What chimes are waiting to be rung; what blades are waiting for the yielding hand; what Gilead balm for the wounded heart.—Trumpets to be blown for liberty; zephyrs to be breathed for love. And these are only words of which we are speaking; words in that volume whose pages are trampled thick with prints of barefoot thought, waiting to be sandaled, and go forth with resounding tread over the iron threshold of the press; forth into the world as went the diluvian dove never to return.

Why, the compactness of our republic depends not so much upon the Fourth of July, as upon the dictionary. There is a oneness of thought in a oneness of word; a common language is the dear repository of a common past, and those who have the same syllables for "home" and "mother," for "hearth" and "heaven," can never be less than kindred.

Three things to love—Courage, gentleness and affectionateness.

Three things to admire—Intellectual power, dignity and gracefulness.

Three things to hate—Cruelty, arrogance and ingratitude.

Three things to despise—Meanness, affectation and envy.

Three things to reverence—Religion, justice and self-denial.

Three things to delight in—Beauty, frankness and freedom.

Three things to wish for—Health, friends and a cheerful spirit.

Three things to pray for—Faith, peace and purity of heart.

Three things to esteem—Wisdom, prudence and firmness.

Three things to like—Cordiality, good humor and mirthfulness.

Three things to suspect—Flattery, Puritanism and sudden affection.

Three things to avoid—Idleness, loquacity and flippant jesting.

Three things to cultivate—Good books, good friends and good humor.

Three things to contend for—Honor, country and friends.

Three things to govern—Temper, impulse and tongue.

Three things to prepare for—Change, decay and death.



MEETING OF ISAAC AND REBEKAH.

The habits, manners, customs and dress which prevailed nearly 4000 years ago, in the lands mentioned in the Bible, require some study to understand the scene presented in the above illustration. Abraham having lived in Canaan and become very wealthy, wished his son Isaac, then forty years of age, to take a wife, not however from among the people surrounding him, but from his own nation. He sent his steward, who had charge of his estate, to carry out this important purpose. Having arrived at Haran, and found Rebekah, he pre-

sented before her and her family the desire of Abraham concerning his son and also gave to Rebekah jewels of gold and silver and presents to her family. At the time for the return of this embassy, Isaac, as was his custom went out into the fields at eventide, and saw the returning party. The picture represents the meeting of Isaac and his bride. No doubt it was a happy meeting, for the faithful steward who stands by the camel had faithfully brought about the union of these two wealthy and honorable persons, having trusted in God for his help and guidance.



Editor's Table.

POSTAGE STAMPS.

We are daily in receipt of letters of inquiry on various topics requiring answers by mail. Some of these letters contain stamps to prepay postage on letters of reply, but a great many do not. If it were but one or two letters a day that we had to prepay for the benefit of other parties, it would not be a matter of much consequence, but when we have ten or more on some days, it is quite a tax upon us. We are willing to throw in time, paper, envelopes, &c., but must insist upon stamps to prepay the postage on letters for other parties' benefit.

Proceedings Mo. State Hort. Society.

The proceedings of this Society will be published in pamphlet form, and ready for delivery during the present month. They are now nearly off the press.—They are quite lengthy, and contain a large number of valuable essays. To fruit growers they will be interesting and valuable. To any person sending us Two NEW SUBSCRIBERS and Two DOLLARS, we will send a copy of these Proceedings postage prepaid. With a very little effort, any of our subscribers can thus procure a copy free.

THE WHEAT CROP.—We regret to be compelled to state that winter wheat has suffered very severely during the past month. On Monday, the 15th of February and for a number of days previous, the weather was very warm, and vegetation was beginning to push considerably, particularly winter wheat. Monday night the weather changed suddenly and became very cold; the thermometer Tuesday morning standing at nearly zero. The suddenness of the change and the great severity of the cold nearly killed the wheat plants outright. Strawberry plants suffered severely from the same cause. We fear the wheat crop in this section has received nearly a fatal blow.

TRANSACTIONS OF THE ILL. STATE HORTICULTURAL SOCIETY.—We refer our readers to the advertisement in another column of these reports, which are now for sale. Every horticulturist should send for these Transactions, containing, as they do, the experience of the fruit growers in all the ramifications of that art in Illinois.

NEW AGRICULTURAL IMPLEMENT AND SEED STORE.—By reference to our Advertising columns, it will be seen that we have a new Establishment of this kind in St. Louis. This is an additional testimony to the increased prosperity of business in our city: Messrs. Barnum, Fenner & Co., are gentlemen favorably known in St. Louis, and they will doubtless do a large and profitable business.

TOBACCO CUTTING MACHINES.—Ed. Valley Farmer: Can you inform me where I can get a machine suitable for the manufacture of fine and coarse smoking tobacco. If so, give me the price, their capacity—whether hand, horse-power, or both, &c.

Brownsville, N.T.

A. BORST.

[ANSWER.—We are unable to give our correspondent any information on the subject. If any of our subscribers can, we will cheerfully publish it PRO BONO PUBLICO.]

ST. LOUIS HORTICULTURAL SOCIETY.—This Society holds a meeting every Saturday at 11 A. M., in the Court House, either in the Probate or Supreme Court Room. The following gentlemen were elected officers for 1864:

President, Wm. F. Cozzens. Recording Secretary and Librarian, John H. Tice. Corresponding Secretary, Norman J. Colman. Treasurer, Dr. B. F. Edwards.

FLAX SEED AND CASTOR BEANS.—Attention is called to the advertisement of the O'Fallon White Lead and Oil Company. Those wishing to raise these crops should lose no time in posting themselves about their proper culture. By dropping a line to the Company, you can get a pamphlet free, giving full directions for the culture of these crops. They can be profitably cultivated, and farmers favorably situated would do well to turn their attention to them.

CONTENTS OF NO. 3.

Agricultural.

Essay on Hemp Culture, - - -	65
Experience; Barometer; Beehives; - - -	67
Bone Manure; Tobacco Culture, - - -	68
Cultivation of the Osier Willow; Forest Management, - - -	70
How to Kill Gophers, - - -	71
Selling Produce; To Measure an Acre; Cotton Culture in Missouri; Evergreens, Moles, &c. - - -	72

Stock Department.

Missouri and Illinois Wool Growers' Association, 74	
Bots; Croup in Cattle, - - -	76
Quarter-Crack in Horse's Foot; Fistulous Withers; Pulling Horse Cured; Water for Sheep; Salt; Hoven in Cattle, - - -	77
Grease in Horses: Preserving and Making Butter, 78	

Horticultural.

Deep Culture for Fruit Trees, - - -	79
Injury of the Freeze of Jan. 1; Apple Trees in De Kalb Co. Mo., - - -	80
A Description of Some of Our Grape Vines, - - -	81
Fruit Prospects in Southern Ohio; R.I. Greening, 82	
Care in Planting Trees; Horizontal Training of Grape Vines, - - -	84
The Frost of January, 1, - - -	85
Grafting Fruit Trees; Fruit Trees in Crawford Co., 86	
Hardy Magnolias; Monthly Hints, - - -	87
Mo. State Horticultural Society, - - -	88
Meramec Horticultural Society, - - -	90
Criticism on Late State Hort. Meeting, - - -	90
Domestic Department, - - -	91

Home Circle.

Kindred Ties; Economy in a Family; What Can be found in a Dictionary, - - -	92
Isaac Meeting Rebekah, - - -	93

Editor's Table.

**DR. WM. VANZANDT,
PHYSICIAN AND OCULIST.**

Office—No. 52 Washington Avenue, between 4th
and 5th Sts. St. Louis, Mo.

ARTIFICIAL EYES of every description and
color, set to match. [dly]



FOR SALE.

We have a large stock of APPLE TREES, embracing the best varieties in the West. Price 20 cents each; \$15 per 100. Our stock of PEARS is also large, particularly Standard, and the trees are superior. We have a fair stock of DWARF PEARS, including those varieties that succeed best on Quince—Ages, 2 and 3 years old. Our stock of CHERRY, PEACH, QUINCE, & C., is fine. Of SHADE TREES, SHRUBS AND ROSES, we have an unequalled assortment.

Every Family should have an abundant supply of GRAPES, STRAWBERRIES, RASPBERRIES, CURRANTS, GOOSEBERRIES, NEW ROCHELLE BLACKBERRIES, ASPARAGUS PLANTS, AND LINNAEUS RHUBARB. We can supply all these, and of the best quality. Greenbacks invested in good Fruit Trees and Plants, will not depreciate, but pay a large per cent. upon the investment, and as we sell at old specie prices, now is a good time to invest.

Fruit is a great luxury, and should be enjoyed by all. Now is the time to plant. Send for a Catalogue. Address, N. J. COLMAN & CO.,

Proprietors of the St. Louis Nursery.

'INDISPENSABLE TO EVERY FARMER.'

**Sorgho, or the Northern
Sugar Plant.**

BY ISAAC A. HEDGES.

A complete and practical Guide to the Cultivation of the Chinese and African Cane, with full directions in regard to the Manufacture of Syrup and Sugar. Illustrated with numerous Engravings and Diagrams. 214 pages. Cloth, 75 cents, postage paid. Liberal discount to wholesale purchasers. Send orders to

P. M. PINCKARD, No. 80 Pine St.
St. Louis, Mo.
3t9.mar]

Nansemond Sweet Potatoes

FOR SEED.

The best variety to grow at the North. Price \$10 per bbl. (of 3 bush.); \$4 per bushel. Also, Plants of best quality in proper season at low rates. Send for my Circular of Directions for Growing, etc.

Address, M. M. MURRAY,
Fruit Hills, near Loveland, Ohio.
1t]

**FOR SALE, MY FINE STALLION
ROYAL MORGAN.**

He is 6 years old this spring, 15½ hands high, a beautiful chestnut sorrel, well formed, and drives in single or double harness. He was sired by Morgan Hunter: he by Diamond Horse; he by Old Woodbury; he by Justin Morgan; his dam Molly Johnson, was sired by Green Mountain Morgan; her dam a splendid bay mare of Morgan descent. For terms, &c. address or call on the subscriber, 3 miles east of Bridgeton, St. Louis Co. Mo. He will be sold low.
1tpd2t] THOS. G. SETTLE.

SEEDS SENT BY MAIL

TO ALL PARTS OF THE UNITED STATES

We are prepared to send by mail assortments of
FLOWER, GARDEN AND FIELD SEEDS,

On receipt of price and postage as per our published List. Our Seeds are of the best growth and selections from the most reliable American and Foreign resources. Catalogues furnished on application. Postage only two cents for four ounces.

All kinds of Agricultural Implements and Fertilizers.

R. H. ALLEN & CO.,

1t] 189, 191, 193 Water St., New York.

PEACOCK PATTERN PLOWS

William Baxter,

162 Market, between 6th and 7th Streets, is

AGENT FOR THE ABOVE PLOWS.

TO FARMERS.

The O'Fallon White Lead and Oil Company,

OF SAINT LOUIS, MISSOURI,

Will furnish seed and contract with those who will plant

FLAX SEED

AND

CASTOR BEANS,

The coming season, agreeing to pay them the market price, and guarantee that it shall be a good paying price. For further information, call or write to

THE O'FALLON WHITE LEAD AND OIL COMPANY,

GEORGE W. BANKER, - - - PRESIDENT,

Office and Store, No. 108 Second St.
Factory, Corner Second St. and Cass Avenue,
ST. LOUIS, MO.

Send for a Pamphlet containing full directions for Cultivation.

Linseed and Cotton Seed Oil Meal,

For sale by the 100 lbs. or by the ton. One pound of this meal is equal to three pounds of corn meal for cattle.

3tmar—12.*]

WANTED, by a German
Orchardist and Vineyardist, who has about twenty years' experience in different States in this country—A SITUATION—would prefer one as manager in a Vineyard and as Wine Master and Cellar Master, and if desired to take charge of the whole farming business—address letter to
H. H. Centralia, Ill.
[1t\$2pd]

JOHN H. MANNY'S REAPER & MOWER Combined, WITH GREAT IMPROVEMENTS.

The First, Most Complete, and Most Successful Combination
of REAPER and MOWER IN THE WORLD.



NEAR
60,000 !!



Have been Made and Successfully Used.

HUNDREDS UPON HUNDREDS OF PREMIUMS,

Have been awarded it in Competition with other Machines, receiving in Europe, during 1862,

THE GRAND MEDAL

OF THE WORLD'S INTERNATIONAL EXHIBITION,

IN LONDON, BEING the HIGHEST AWARD FOR ANYTHING in the EXHIBITION.

THE

IMPROVEMENTS FOR 1864

ARE EXTRAORDINARY.

See them in sample machines with different Agents throughout the State.

IT IS THE LIGHTEST RUNNING MACHINE
IN THE WORLD!

THAT WILL DO ITS WORK.

Don't Fail to See a Sample of the Great Improvements
before you buy or order any other Machine.

A PENNY SAVED IS BETTER THAN TWO EARNED.

Agents Wanted in every County in Missouri.

Enclose Stamp for a Descriptive Pamphlet.

NORMAN J. COLMAN, AGENT,

Valley Farmer Office, 97 Chesnut Street, St. Louis, Mo.